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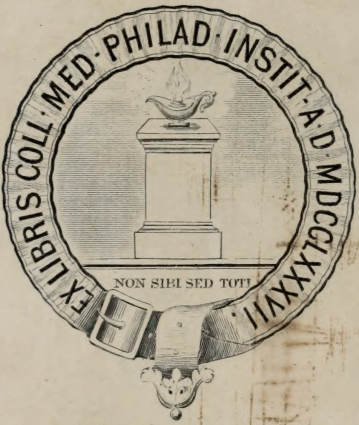

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R. J. Dunglison, M.D.

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Original Contributions.

Sulphite of Soda in Blood Poisoning.

BY T. L. WRIGHT, M. D., BELLEFONTAINE, O.

THE prevalence of what is termed "blood poisoning," induces me to write a brief exposition of the powers of sulphite of soda.

I will write only salient points and facts from memory, without troubling the reader with theories.

Eight years ago I was requested to visit a lady, several miles distant, who was said to be suffering greatly with rheumatism. Upon arriving I found a woman about fifty years old, who was the victim of intense pain in one of her hands. The ball of her thumb had the appearance of being covered by a "blood-blister." The tips of two of her fingers on the same hand presented a similar aspect. The fever and general excitement were of a very high grade.

I was informed that the lady had, a day or two previously, washed the soiled bed and other linen of a person who had been confined in child-bed. I also learned that the woman who had been confined had, a couple of days thereafter, died of metritis. In doing this washing, my patient had pricked her thumb with a pin or needle.

My prescription was sulphite of soda, I might say *ad libitum.* I did not weigh the medicine, but dissolved probably half an ounce of it in half a pint of water; quite likely the solution was even stronger. Of this I gave a teaspoonful, considerably diluted, every fifteen minutes for a few doses. Then the intervals were increased to half an hour; then to one hour; and in the course of twenty-four hours they were increased to two hours, and held at that point. My object was to saturate the blood with the medicine—if I may be allowed the expression—with the utmost possible celerity.

Local treatment was principally yeast poultices, into which charcoal had been mixed. Of course, those portions of the hand which presented the appearance of sphacelus, sloughed away, having the usual odor of putrid flesh. Two of the bony ends of the fingers projected beyond the flesh that remained intact, and when I applied the bone forceps to clip them, they simply mashed and crumbled away like rotten wood. A portion of the palm of the hand also sloughed away.

Something very soon produced a mitigation of the violence of the attack. As the local affection spread upward toward the elbow, mortification no longer appeared, but in place of it there was formed a deep-seated and rather large abscess, which I opened. As the malady still progressed toward the shoulder, the appearances were yet more favorable, until, after the lapse of a number of days, the local aspect of the malady was that of the ordinary spreading erysipelas affecting the skin. Anon, this also disappeared, and the patient, after a tedious recuperative process, entirely recovered and is now living.

The hand of this patient shows evidence of considerable loss of substance, but is not very much deformed.

In the month of August, 1880, I was called to see another lady. I found her weeping with pain. One of her hands was greatly swollen, and seemed to be filled with deep-seated pus. Three days previously she had, while cutting some beefsteak, slightly wounded the end of one of her thumbs. This was the point at which her trouble began, and from which it spread into her whole hand. There were no gangrenous blisters. She had been treated for rheumatism.

In this case of blood-poisoning, it is a question whether the inoculation came from some minute portion of tainted flesh brought from the butcher shop; or whether it was from impurities imparted to a wash-basin, through sputa from a sore throat, a case of which was in the house.

The constitutional treatment was precisely the same as that adopted in the instance of blood-poisoning already described. The hand was lanced in several places at different times. The arm also, between the wrist and elbow, was lanced, and a considerable quantity of pus discharged. As the disease spread upon the arm, it began to present the appearance of ordinary erysipelas; and it received the usual local treatment of that affection. In the course of several weeks all the symptoms disappeared, and the patient made a tedious convalescence. The early stages of this case were characterized by a very high grade of fever.

A feature of the disease in the present instance was an indication of *pyæmia.* Several joints were threatened with suppuration, and one ankle became swollen, tender and red. At length, however, the inflammation was resolved, without the formation of an abscess.

The hand of this patient presents a fair appearance; one finger only being considerably contracted.

A third instance of blood-poisoning came under my care in the month of October, 1883. One E——, a saloon-keeper, over fifty years old, of robust habit of body, dispatched a messenger, requesting my attendance. I found him suffering exquisite pain from an insignificant looking injury on one of his little fingers; the skin being broken. He had been in the cellar under his saloon arranging some barrels. He wounded his finger upon an iron hoop, which was covered by a green mold.

In a few hours the track of the absorbents in the arm could both be seen and felt. There was no doubt that the man was the victim of blood-poisoning.

I at once put him under the same treatment that I had employed in the two instances heretofore described. The patient was compelled, within a couple of days, to take to his bed, from which he did not rise, even to obey the calls of nature, for more than two months.

The hand suppurated, and it was lanced several times and in several places. The lower portion of his forearm also became the seat of a large abscess. There were beside two or three superficial abscesses near the elbow joint. The local affection spread over the hand, forearm and arm, and it was not until it had passed beyond the limb altogether, and began to spread down upon the chest, that it finally assumed the more propitious appearance of common, superficial erysipelas.

The individual peculiarity of this case was the involvement of the entire interstitial cellular tissue, causing the whole limb, from fingers to shoulder, to swell to enormous proportions; while the points of actual suppuration only occurred in detached places.

During the earlier stages of the malady the fever was very high. The temperature on the sound side of the body was usually 102°, while it was a degree higher on the side affected.

There was, of course, in each of the cases described a large range of subordinate treatment. In particular, opium and its salts were freely employed. Quinine and the mur. tinct. ferri were given with a good deal of pertinacity as valuable adjuvants. I am bound to say, however, that on several occasions, after I had suspended the soda in consequence of its disagreeable taste, and attempted to substitute quinine and iron for it, my patients did not get along well, and I was compelled to return to the soda.

I have no doubt that there are other medicines equally efficacious as antiseptics and antiferments, with the sulphite of soda. But it so happens that when taken into the human system, they are, to some extent, inimical to its well-being. They may even prove destructive to life in consequence of some untoward and undesired toxic properties inherent in them ; so that to administer them in very large doses, and repeating them for a long period of time, is impracticable.

The whole of this man's arm is nearly useless, and it hangs helpless by his side. This is by reason of damage to the texture of the limb itself, and is not derived from nervous incapacity of brain or spine. When moving about E—— seizes the wrist of the affected arm with his sound hand, and, steadying it, carries it beside and a little in front of him.

Something About the Proboscis.

BY E. A. COBLEIGH, M. D., TENNESSEE.

I HAVE often been struck by the frequency of a diseased condition which seems seldom or never to be mentioned by authors on the subject. And, as I was frequently puzzled by the condition aforesaid, when I first began observing it, and found no light by consulting all of the numerous text-books then at my command, perhaps it may not be amiss for me to call attention to it briefly, in hope some reader of the NEWS may reap a little benefit thereby. I speak, of course, of the general practitioner, and not of specialists, to the latter of whom it may seem merely commonplace.

The condition mentioned pertains to the anterior orifices of the nares and their vicinity, especially the extreme "tip" of the nose. Very often a patient presents himself for treatment, whose entrance attracts our attention by the excessive redness of his nasal organ, perhaps limited to a very small spot, perhaps extending over more of the surface, but suggestive in hue of rosacea, or erysipelas. A coryza may attend this state, or we may find the mucous surface dry and harsh. But in either event we have a phlegmonous condition of the substance of the nose. There may be great sensitiveness to the touch, there may be severe throbbing pain, or the sensibility of the external surface may not be markedly lightened. Generally the vivid redness is of rather small extent and distinctly circumscribed, though occasionally diffuse and extensive. It looks, at first glance, as if the person affected was going to have a boil, opening externally, and in the rarer form of the disease this does actually occur, perhaps the little furuncles appearing under the skin in successive crops. More commonly a small abscess forms at some point in the substance of the thick nasal tip—sometimes several form at once—and, after a few days of more or less suffering for the patient, points in the nares, breaks, and discharges a considerable quantity of pus.

Another termination of quite common occurrence is by general diffusion of the inflammatory process, immediately under the mucous surface of the nares, no large abscess forming, but an eczematous state giving rise to one, or a dozen or more, very minute vesicles or pustules, which are intensely hot and painful, feeling like "briars" in each inflamed point. These follow the same course as the larger boils, generally ending acutely by cure. Sometimes, however, by coalescence of the pustules, the mucous membrane is extensively denuded of epithelium and a large raw, painful, "weeping" surface results. The affection tends often to frequent recurrence—sometimes becomes continuously existent, and thus a chronic state. Scores of these cases come under my observation every year, appearing at all seasons and affecting every class of society. Early childhood alone seems exempt from attacks.

These cases came, and I knew not what to call them. It was not eczema, for all were not eczematous. It was not furuncle, for all were not boils. But it was always the same state seemingly, but with modifications in different individuals and in different attacks in the same individual. I searched my authorities for something on the subject, and found it not, but gave my patients "general principles" in therapeutics. At last it dawned on me that all the sufferers were victims of nasal catarrh, and closer study of the cases verified that conclusion. Exposure to dust, to wind, to great heat, to frosty air—everything which irritated the nasal mucous surface of these persons at once superinduced an attack. Often sneezing is premonitory of a coming abscess, before the least soreness in the nares or substance of the nasal tip is felt. Then the external red spot shows itself, often with no underlying tenderness even yet, then the "briary" feeling, and then the tension and throbbing of suppuration, the whole process occupying from five days to two weeks. Another peculiarity I found to be, that the redness of skin was frequently some distance from the spot of greatest internal inflammation.

Satisfied that I had found a manifestation of catarrh quite common to this latitude, I hunted for mention of it in the general works in my library, both medical and surgical, ancient and modern, including Cohen, Palmer, Flint, Gross, the International Encyclopedia, etc., but neither under the titles of "Catarrh," "Eczema," nor "General Diseases of the Nose," did I find anything satisfactory on the subject. Other authors with which I am not familiar may speak of it, but probably many of my readers, if it is as common in their localities as here, may have felt the lack of information obtainable on this matter.

Settled in my mind as to the nature, etiology and pathology of my cases, I experimented in treatment in accordance therewith, and found many remedies serviceable, none specific; all the really useful ones only so when applied locally, and all of them equally good in simple nasal catarrh. The best results are obtained by preventive and protective treatment. Avoidance of extremes of temperature, and of wind and dust, are essential. Cold, wind and dust alike, may be kept out of the nose by scarfs, and wraps of that kind, and these alone may answer to prevent attacks. Salves and ointments, by protecting the necessarily exposed anterior nasal mucous surfaces, answer best of all local applications. The mildest of these, as Ung. Petrolini, or the cerate simplex, even the domestic mutton tallow—all these answer nicely as protectives and lubricants. To the simple ointments may be added gently stimulant ingredients, as iodine, salacylic acid, zinc oxide; or astringents, as lead, tannin, iron; or anodynes, as morphine, belladonna, iodoform, camphor, etc. These are only palliative of the acute attacks, but may be pushed during the intervals with a view of preventing recurrences by obviating the unresistant state of the tissues. Constitutional remedies have proved futile in my hands, as this form of catarrh, when dissociated from post-nasal and pharyngeal catarrh, seems intensely local in its character, and not dependent on any special dyscrasia. So, also, the caustics and powerful stimulants have not seemed to act favorably, but occasion positive harm. I have not been able to find any abortive treatment after the phlogosis was sufficiently under headway to make itself known. It may be palliated, its duration measurably shortened, and the final recovery of the parts hastened, by the same remedies which are applicable for abscesses elsewhere—especially poultices at night over the whole nose (and these are often very grateful to the sufferer), and the prompt opening of the little purulent points by a needle as soon as they show themselves on the mucous surface. This latter procedure is not, as it would seem at first thought to be, very painful, but sometimes is rather troublesome to the operator on account of excess of hair in the nostrils of some patients. In a few instances I have evacuated quite considerable purulent deposits through small openings in the nares, most of the pus in these cases coming from the upper lip at the reflection of the nose from the face. And, finally, if any of the NEWS family can give us anything further on this subject, let us have it. I especially desire to know if these conditions obtain, in connection with catarrh, as extensively in other localities of this country as they do here, where they are so common as to fall under observation almost daily in the practice of physicians of large business. Most of the cases are chronic or rather recurrent, indeed quite so, and require continuous treatment for a long time to accomplish anything. Sometimes they are so extremely severe that some permanent thickening of nose (or upper lip in one case) occurs, and erysipelas not infrequently originates from fissures thereabout.

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COFFEE made with distilled water is said to possess delicacy of taste, improved aroma, and, in short, is more agreeable and acceptable in every way, possibly because the distilled water does not take up any of the tannin from the berries, which ordinarily is rendered soluble by the earthy carbonates.

Insolubility of Gelatine Capsules.

BY WADE MINOR LOGAN, M. D., CINCINNATI.

EDITOR OF MEDICAL NEWS:—I have often thought I would communicate to your readers a little observation which I made nearly a year and a half ago, in regard to administering unpalatable medicines in gelatine capsules. I visited, near a rural railway station, at 2 P. M., on August 19, 1883, a middle-aged lady of previous robust health and physical development, who had been ailing for three weeks with malarial fever (quotidian), having at the time an axillary temperature of 105.3 degrees.

After investigating the case, I determined upon the use of quinine, ten grains at 3 P. M., fifteen grains of chloral, with ten minims of tinct. of belladonna, at bed time, a scruple of quinine at 6 A. M., and fifteen grains at 10 A. M. next day, prescribing the antiperiodic in capsules, each dose to be taken with a swallow or two of milk, to ensure or provoke the gastric acidity required to dissolve the medicine. I then left my patient, who herself had given up all hope of recovery, assuring her that before my visit next afternoon she would be at least somewhat better. In this, however, I was disappointed; for, although the night potion had enabled her to rest much better than before, since her illness began, no improvement in the general symptoms could be detected, and indications of cinchonism were entirely wanting, while her temperature was one-tenth of a degree higher than at the same hour of the day before.

As I finished my examination of the patient, August 20th, she expressed a desire to use the chamber (it being the third movement of her bowels since early morn), and shortly after I had retired to another room to deliberate upon the case, my attention was called to the remarkable character of her alvine evacuation. It was semi-liquid, small in quantity, and contained a number of the capsules *in statu quo*.

It was plain to me then, why the treatment was not successful. I accordingly went to the drug store and had the same quantity of quinine as was in the former prescription, using glycerine for the excipient as before, put into capsules, pressing the mass in and filling them nearly even with their open ends, but left off the cap, or cover. These being swallowed easily with their round end downward, followed with a small drink of milk, were afforded every facility for prompt solution and absorption. *First*, because the secretions of the stomach were soon rendered acid by the milk, if not so already; and *second*, because they had immediate access to, and action upon the alkaloid, through the open end of the capsule, the latter itself being doubly liable to solution, with both its inner and outer surfaces subjected to the gastric fluid, than with the outer surface so exposed alone.

As could be fairly anticipated, when I next called (4 P. M., August 21st), I found my patient, while annoyed with all the unpleasantness of profound cinchonism, in a much more hopeful mood, and her temperature reduced to 100 degrees scant. This treatment was continued for several days, with gradually diminished doses of quinine, till convalescence was established, after which a good recovery was obtained under the combined influence of tonic doses of iron, quinine and arsenic.

The success which attended the treatment of this case, is mentioned merely to show, that if effects are to be produced by medicines, the latter must be administered in an entirely available form. In prescribing unsavory solid medicines, I therefore suggest, that capsules be employed, leaving off the cap or end cover of small ones, and that the cover of larger ones be used, making a small opening to admit the gastric fluid through one or both ends.

A Case of Possible Bony Union After Intracapsular Fracture of the Femoral Neck.

BY JOHN R. ROBERTS, M. D.,
Surgeon to St. Mary's Hospital, Philadelphia.

Read before the Philadelphia County Medical Society, November 19, 1884.
Reported for the CINCINNATI MEDICAL NEWS.

MUCH has been said against the possibility of osseous repair occurring after intracapsular fractures of the neck of the thigh bone. It is probable that this teaching has induced more than two-thirds of the general medical profession to believe that bony union of such lesions never occurs. Careful investigation of cases and specimens by competent surgical observers has conclusively demonstrated that such belief is erroneous.* Bony union does occur, though not frequently. In my opinion, moreover, its non-occurrence is to some extent due to the violent and unjustifiable manipulation to which injured hips are often subjected by reason of the attendant's ignorant desire to demonstrate crepitus and preternatural mobility. The diagnosis can usually be made with reasonable certainty without the development of these symptoms of fracture. Therefore, it is unnecessary and improper to imperil the future usefulness of the limb merely to arrive at an absolute diagnosis. In cases of doubt it does no harm to treat the case as one of fracture, even if none exist; but violent manipulation, by tearing connecting bands of periosteum or detaching impacted fragments, greatly reduces the probability of union.

Union *may* be bony, and the function of the joint perfectly or almost perfectly restored; if not bony, the bond of union may be a very short fibrous one, giving as good functional result as osseous repair. Hence, the surgeon should treat his cases as if he expected a good cure; for it is impossible to say that a given patient is one in which no attempt at union will take place. Non-union of intracapsular fracture of the hip is, it is true, often found. I have in mind now a case where the autopsy showed no attempt at even fibrous union. Let us not expect this, however, as a rule, for we may thus be led to neglect proper therapeutic measures. Specimen No. 1130^{15} of the Pennsylvania Hospital Museum, taken from the patient referred to above, between eighteen and nineteen weeks after the injury, is a good illustration of non-union. It was a transverse fracture at the junction of the head and neck of the bone. Specimen No. 1130^{20}, from the same museum, on the other hand, is here shown you; it is described in the museum catalogue as an intracapsular fracture firmly united; and by longitudinal section shows bony union. The specimen belongs to Dr. T. G. Morton, and was removed from a patient, aged sixty-seven years, twelve years after the accident that caused the injury. There is some evidence of impaction near the base of the neck; and it is perhaps *possible* that part of the line of fracture extended without the capsule. Of this we have now no definite evidence, as the ligaments were removed in preparing the specimen. This cast of a specimen is from the Mütter Museum of the College of Physicians, and represents an impacted fracture of the femoral neck in which there was *inversion* of the leg. The patient was under the care of Dr. Conklin, of Ohio.

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*See paper by Dr. N. Senn, in Trans. American Surgical Association, Vol. 1, 1883.

I have made these prefatory remarks to introduce the clinical history of a patient who has now good use of her limb, subsequent to an intracapsular fracture, although treatment was abandoned shortly after the receipt of the injury. She has probably a short fibrous union; possibly a true bony one. In either event, however, the result is gratifying, and teaches that such cases should not be looked upon as necessarily hopeless in respect to union.

She is a German, seventy-eight years old, and was admitted to my ward in St. Mary's Hospital on August 30, 1884, after falling from a street car. The resident surgeon believed there was no fracture at the hip; but on my visit I considered that the position of the limb and the patient's age pointed to intracapsular fracture of the neck of the femur. On taking hold of the leg and making rotation without violence, I felt indistinct crepitation. At once desisting from further manipulation, I ordered permanent extension by weights and lateral support by sand-bags, to be the treatment. Within four days, incontinence of urine, the development of a superficial bed-sore, and the debilated condition of the patient showed me that there was danger of the aged woman dying. I accordingly ordered the resident surgeon to discontinue the fracture dressing, so that the patient's buttocks and back could be kept clean, and the bed-sore properly dressed; telling him that no union of the fracture was likely to occur, and that we must endeavor to save life by tonics, stimulants and food, and the prevention of further bed-sores. I gave a similar prognosis to my Polyclinic pupils who saw the case. Ten days later, that is, two weeks from the time of injury, another incipient bed-sore was noticed on the buttocks. The hospital notes of this date say I ordered that change of posture be frequently made, and that she sit up as soon as possible. Six days subsequently she was sitting up in a chair. I am unable to say whether she got out of bed previous to this date or not. The bladder symptoms gradually improved; she soon sat up all day, and on October 4th, five weeks after admission, it is recorded that she was walking on crutches. On October 26th she was able to walk a little *without* crutches, though she did not do so much. She continued to gain in activity until her discharge on November 2d.

The result was so unexpected to me, for no restraint of motion at the hip was attempted after four days, that I almost mistrusted my diagnosis, and concluded that possibly the resident surgeon's original diagnosis was correct. I had made no investigation of the condition of the limb since she began sitting up. A few days before her discharge, however, I put her in bed, and with my colleague, Dr. Keen, examined her. The leg was strongly everted, as in intracapsular fracture, immediately after the injury, and she was able to invert it only so far as to make the toes nearly vertical. She could raise the leg, however, and lay it across the other, or carry it outward; and, indeed, appeared to have every motion of the joint, except full inversion, though she stated it was a little stiff when walking. She had no pain. The everted leg, therefore, made the correctness of my diagnosis an established fact. Here, then, in a woman of seventy-eight years, was obtained union and a useful limb, despite the absence of treatment. In the face of such result, treatment should always be attempted, and not abandoned unless circumstances, such as arose here, demand its discontinuance. Well-directed treatment will certainly be expected to make many good cures, if no treatment will occasionally give so excellent a limb.

DISCUSSION ON CASE OF PROBABLE BONY UNION AFTER FRACTURE OF THE FEMORAL NECK.

Reported by G. BETTON MASSEY, M. D.

Dr. O'Hara: I assent to the views put forth by Dr. Roberts. I recall a case of a gentleman of 79 years of age, injured on a railroad car in motion, moving his body at the same time to get out on the platform.

A distinguished surgeon pronounced it as hopeless for cure, and, as the patient was so aged, advised nothing to be done for the repair of the fracture. It was diagnosed by both of us as an intracapsular fracture.

Sand-bags and extension were applied. The patient readily co-operated, and barely moved for eight weeks. He had good health, though so old, and to my astonishment he walked in eight weeks without a crutch. There was very little difference to be noticed between the two limbs, except a slight eversion of the affected one. He used the limb without any trouble until he died, seven years later. The man, for his age, was remarkably healthy, and this might have been other than a fracture of the neck, but those present examining it at the time, could make no other diagnosis.

Dr. John H. Packard: From Dr. O'Hara's statement as to the shortening in his case, I should scarcely think him warranted in claiming it as probably one of bony union of an intracapsular fracture.

I regret that I came in so late as to miss the report of Dr. Roberts' case, and the earlier portion of his remarks upon it. The subject is one which has greatly interested me, and I have examined with care all the reports of cases claimed as bony union, and all the specimens accessible to me. [Dr. Packard then illustrated by diagrams on the blackboard, the structure of the neck of the femur, as shown on vertical section.] In all cases of fracture, wholly or partially extracapsular, there is a long point or spur of bone extending down close to the lesser trochanter. When such degeneration takes place, the structure becomes weaker and less marked, and there is a certain amount of fatty change; under these circumstances the bone may give way, even under slight stress, near the head, and across the axis of the cervix. Now all the cases claimed as of bony union of fracture of the neck of the femur within the capsule, with one exception, are open to the explanation that the fracture was really in part extracapsular; and that the lower portion of the cervical fragment, after union had taken place, became absorbed, so that the head sank down against the intertrochanteric portion of the distal fragment.

The exception was in a specimen presented by Dr. J. M. Adler, in 1869, to the College of Physicians of Philadelphia; it was referred to a committee consisting of Dr. A. Hewson, Dr. John Ashhurst, Jr., and myself, and we decided, after careful study, that it was an example "of genuine bony union of an impacted intracapsular fracture of the cervix femoris."

A year are two since I had the opportunity of examining one of the specimens claimed by the late Dr. R. D. Mussey, of Cincinnati, as of this character, and found the long point of bone, above described, still distinctly marked.

With regard to the treatment of fractures of the cervix femoris, I think we are seldom justified in leaving the cases to nature; only, in fact, when the age and debility of the patients, the occurrence of bed-sores, and the restlessness sometimes met with in old people, make the chance of a good result too small to warrant subjecting them to the discomfort, and even risk of confinement with extension.

Some years ago I exhibited to the Academy of Surgery a man who, when 62 years of age, fell backward over a pile of boards, fracturing the neck of the left femur. He was tractable and of fairly temperate habits; I treated him at his home, with extension by weight and pulley, and after the first week made him sit up daily in bed. Although I told him he would probably remain always a cripple, he recovered completely, and walked well, even up and down stairs, at the fourteenth week. When brought before the Academy, he had no limp whatever, and could stand on or move either leg indifferently, there was actually nothing, except slight perceptible thickening, to show on which side the injury had been.

About ten years ago I was called to a young man of about 20, who had been thrown from the high driving-seat of a wagon, and sustained a fracture of the neck of the thigh bone. Dr. Nancrede, who aided me in the dressing, and myself, determined the nature of the injury under ether. The man recovered, so that within two months he was driving his wagon, as well as ever.

I think that, while we can never confidently promise much in these cases, we ought never to despair, and never be satisfied with anything less than the best attainable results. Unless the unfavorable conditions before mentioned are present in a most decided degree, an attempt should always be made to institute effective treatment.

Dr. Levis: I think Dr. Roberts a little too confident of our ability to make a differential diagnosis in these cases. It is certainly sometimes impossible to do so without making the manipulations which he condemns. In obscure cases, when a diagnosis is important, I place the patient with the face down, and carry the limb back as far as it will go. Normally this distance is but slight, but fracture of the neck of the femur allows much greater motion. It is with regret that I put a patient through this manipulation. The best method to make a differential diagnosis between the two forms of fracture, is by rotating the limb. Normally, the great trochanter rotates in an arc with a radius of the full length of the femoral neck; if there is intracapsular fracture, this radius is but slightly diminished; while there is scarcely any radius in extracapsular fracture, because the center of rotation is the long axis of the femoral shaft.

Dr. Packard: I feel bound to protest against the employment of needless force, or, indeed, of any violence or rough handling in the diagnosis of fractures. In the case of the hip, if crepitus is once elicited, that should suffice; there should be no further testing nor demonstration of it, lest the fragments be brought into worse position.

Dr. Levis: I never feel assured of the real lines in any case. If the cause is trivial, and there has been no fall upon the trochanter, it is probably intracapsular. If there has been a severe fall upon the trochanter, it is highly probable that it is extracapsular. I do not recall what was my feeling on this point in the case Dr. Baldwin alluded to, but from his remarks would say it was extracapsular.

Dr. Addinell Hewson: I have had experience with both intra- and extracapsular fractures, and have a very good specimen of bony union that was my father's.

In a case at the Pennsylvania Hospital, I first demonstrated the value of the contrivance known as the "Lovers' Telegraph," for conveying the crepitus to the ear. I have used it frequently, and am satisfied that many cases can be demonstrated by it, otherwise difficult of recognition. The surgeon is in too great a hurry usually. In a majority of cases we may have union with some shortening, by using N. R. Smith's anterior splint, keeping the limb so suspended in a semiflexed position at both hip and knee joints, and allowing the patient to move in the bed without danger of disturbing the coaptation of the fragments or the occurrence of bedsores.

Dr. W. S. Forbes: The point alluded to by Dr. Levis—the radius of the arc of rotation—is important. An illustration of its value occurred under the care of the late Dr. Joseph Pancoast, when he diagnosed intracapsular fracture in a young man of 27, owing to a lessening of the arc of rotation on one side. The other surgeons present at the consultation doubted it, having in mind Sir Astley Cooper's saying that he had never seen a case occurring under 30 years of age.* The man died in a week, of mania-a-potu,

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[The Publication Committee have permitted Drs. Forbes and Packard to add the following notes to their remarks in discussion.]

* "It (fracture of the neck of femur) very rarely occurs under fifty years of age; and dislocation seldom at a more advanced period, although there are exceptions to the rule; for I have myself once seen this fracture at thirty-eight years of age, and a dislocation of the thigh at sixty-two."—Astley Cooper, Surgical Essays, Part II, page 35, second edition, London, 1820.

and the specimen is now in the museum of the Jefferson Hospital, showing fracture of the neck within the capsular ligament.

Dr. Packard: I think that Sir A. Cooper must have been aware of Mr. Stanley's case, that of a boy of 18, which occurred at St. Bartholomew's Hospital about 1830.*

Dr. A. V. Meigs: I recall a case, treated by Dr. Levis, at the Pennsylvania Hospital, three years ago. The patient now walks without a stick. She is 90 years old.

Dr. Roberts, in closing the discussion, said: The discussion this evening shows us that the result of treatment of this accident is much more favorable than has been heretofore taught.

I am glad to know that Dr. Packard believes in the occasional occurrence of bony union. In such cases bony union probably results because the periosteum covering a portion of the neck is untorn, or because the fragments are impacted. If there is impaction, you of course have bony union favored for mechanical reasons.

The third point I wish to make is, that it is shown, by the possibility of impaction and untorn periosteum, that violent manipulations for differential diagnosis should not be allowed. Should I suffer from a personal infliction of the accident, there would a very small amount of handling done by my attendant, if I were able to remonstrate.

Selections.

On Life-Saving from Drowning by Self-Inflation.

BY HENRY R. SILVESTER, M. D., B. A., LOND.,
Fothergill Medalist, Royal Humane Society.

THE reduction of the specific gravity of animal bodies by means of hypodermic inflation is a subject which has for some time engaged my attention. I have endeavored to elucidate it by an experimental inquiry, my object being to diminish the great mortality from drowning. From the earliest ages attempts have been made to render the human body capable of floating in water, but these efforts have mainly been in the direction of attaching to the body, when immersed, various substances of less specific gravity; such, for instance, as the inflated skins of animals, life-belts, etc. Atmospheric air, from its extreme lightness, namely, 815 times lighter than water, has been most frequently employed, but there has been some difficulty in finding a suitable envelope for containing it. It is atmospheric air which is universally employed by nature to produce buoyancy. Many fishes possess hollow sacs filled with air, and these sacs are developed occasionally from the ventral, though more commonly from the dorsal wall of the pharynx, œsophagus, or stomach. In the Teleostei the membrane lining the bronchial chamber is prolonged into sacs, which lie at the sides of the body. The Diodons and Tetrodons render themselves buoyant by swallowing air, which filling the first stomach, they became inflated like a balloon. In the case of birds there are in some as many as nine air sacs, two of which are situated in the cervical region, while in some of the Lacertilia the membrane of the larynx between the circular cartilage and the first ring of the trachea protrudes in the form of an air sac.

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* It was published in the *Medico-Chirurgical Transactions*, Vol. XVIII, as read May 27, 1833.

It will be within the recollection of your readers* that I have already demonstrated at the International Fisheries Exhibition the possibility of inflating the subcutaneous space in animals so as to render them sufficiently buoyant to be employed either singly or yoked together to convey persons from a wreck to the coast; but since animals are not always present in cases of shipwreck, and human lives may be saved by being enabled to traverse a few yards of deep water, I have demonstrated the possibility of producing in man himself the condition known as surgical emphysema. In August, 1883, at King's College Hospital, by means of a blow-pipe and elastic syringe, I inflated at the wrist the subcutaneous tissue of the whole body, with the result that in a few minutes sufficient air passed under the skin to support a weight in water of between forty and fifty pounds. This amount is considerably more than would be required to preserve a person from drowning, nine or ten pounds being considered sufficient. Although one can imagine the existence of circumstances which would justify such a proceeding as the above, yet

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*Vide *The Lancet*, July 7, 1883, "Hypodermic Inflation."

the practice of it would require a certain amount of surgical knowledge. Moreover, it would be impracticable, except under favorable circumstances; and there are probably few persons capable of accomplishing it in their own bodies. I have accordingly sought for a much easier and more ready means of rendering the body buoyant in water, and which could be accomplished without the employment of any apparatus, and, in fact, which might be performed without assistance in a moment, under the most adverse circumstances, and by the most ignorant, if once instructed in it, and without danger or pain, and suitable alike for the roughest sailor or the most delicate female. The intention of the proposed operation is to cause the skin of the neck and upper part of the chest to be sufficiently distended with air to support the weight of the body when immersed; the inflation being effected by the person himself by means of his lungs, without the intervention of appliances. The operation consists in making a small puncture—not larger than would allow, for instance, of the passage of an ordinary blow-pipe—in the mucous membrane of the inside of the mouth, the object being to open a communication for the passage of air from the cavity of the mouth into the subcutaneous spaces of the neck. The situation chosen for the puncture is in the angle formed between the gum of the lower jaw and the side of the under lip or cheek, about opposite the first molar tooth of the lower jaw. The point of the instrument perforating should be passed down a short distance between the skin of the side of the face and the superficial fascia of the neck, its point being guided by the finger placed on the outside of the face and neck, taking care not to puncture either the skin or the superficial fascia. This having been done, and the instrument removed, in order to inflate the skin of the neck and chest, the patient should close the mouth and nose, and make a succession of forcible expiratory efforts, when the air contained in the cavity of the mouth will pass freely into the subcutaneous tissue of the neck. These expiratory efforts, inspiration being effected through the nostrils, should be continued until the skin is fully distended with air, which will pass readily to both sides of the neck and down the chest as far as the nipples; and this is all that is required to render the body buoyant in water. Should it so happen that the superficial fascia has been punctured and the air pass beneath it, the only difference in effect would be that the extent of air would be limited by the attachment of that membrane to the clavicle below and the border of the jaw above. The amount of air which the skin of the average neck is capable of holding without undue distension, has been measured, and found to be enough to support ten pounds, and this is amply sufficient to support the body immersed in water. The time required for inflation is found to be less than three minutes. The neck may be kept in an inflated condition by closing the puncture, by pressure on the outside of the cheek by the finger, or by keeping the mouth distended with air; and when required the air may be immediately discharged from the neck by allowing the puncture to remain open, or by suction.

The advantages may be summed up as follows: 1. The proceeding is perfectly harmless and almost painless, quickly done, and almost immediately recovered from. 2. It may be learnt in a few minutes, no technical knowledge being required, and may be accomplished by the person himself without assistance. 3. No special apparatus is required. In an emergency the point of a penknife, or even a sharp-pointed splinter of wood, is all that would be required. The inflating apparatus is the person's own lungs. 4. The air could be repeatedly reinflated, and even during prolonged immersion.—*Lancet of London.*

Cocaine Hydrochlorate Anæsthesia.

BY A. A. HUBBELL, M. D.,

Professor of Diseases of the Eye, Ear and Throat, in the Medical Department of Niagara University.

THE discovery that a solution of cocaine hydrochlorate applied to certain parts of the body will render them insensible to pain, has, during the past few weeks, aroused the medical profession, especially its ophthalmological branch, to a degree of interest and enthusiasm unequaled in intensity since the introduction of general anæsthesia.

A local anæsthetic has been a great desideratum from the earliest history of surgical practice to the present time, and has been sought with poor success. Various appliances, agencies, and drugs have been recommended and tried, such as heat, cold and caustics; but all have been so irritating and destructive that they have, at most, received very meager and doubtful favor.

With the promise, then—aye, with the acquisition—of an agent that will answer, in a measure, at least, the great desire of ages, in producing a local anæsthesia of even a part of the tissues of the body, no irritation, inflammation or pain following its use, naught could be expected from medical men but the most eager attention and interest, leading to great activity of experiment and the uplifting of many voices in its praise.

It was on the 15th of September last, that Dr. Charles Koller, a young physician of Vienna, through Dr. Brettauer, of Trieste, presented to the Heidelberg Ophthalmological Congress a short paper on "The Local Anæsthesia of the Cornea and Globe by Means of Cocaine." Following the reading of the paper, the properties of the cocaine hydrochlorate were demonstrated upon the eyes of patients from Prof. Becker's hospital. Various reports of the Congress were sent to different parts of the world, and each referred especially to Dr. Koller's observations and the cocaine experiments. Dr. H. D. Noyes, who was in attendance, was the first to herald the new discovery to the American profession, through a communication to the *New York Medical Record*, which was published in its issue of October 11th. Dr. Noyes, at the same time, addressed a letter to Dr. Edward R. Squibb, of Brooklyn, N. Y., and asked him to place some cocaine hydrochlorate in the hands of Drs. C. S. Bull, of New York, and A. Mathewson, of Brooklyn. Dr. Mathewson was out of town. Dr. Bull received a sample of the preparation on October 7th, and on the following day, October 8th, used it upon the eye for the first time in America, producing anæsthesia of the cornea, and removing a cinder which had become imbedded in it.

When Dr. Koller's brief, but immortal, paper was read, only two weeks had elapsed since he began his observations with cocaine hydrochlorate. He was led to make his experiments by a knowledge of its benumbing effects upon the tongue and mouth, and of its application, during the past year, by laryngologists to the vocal cords and contiguous parts, whereby these were so deprived of their sensibility that they could be handled and treated with comparative ease and comfort.

It appears that Dr. Koller began his experiments in the laboratory of Prof. Stricker. He used a solution of the same strength as that which laryngologists had used, namely, two per cent., and applied it first to the eyes of animals. He found that, when dropped or brushed upon the cornea and conjunctiva, it soon produced such a degree of insensibility of these structures that they could be pinched, scratched, torn or cut without the animals showing evidence of pain. He also noticed that no irritation was caused by the drug itself. He next applied it to his own eyes, and afterward to those of other persons. The results of his brief experience, as given in his paper, may be thus summarized: 1. The strength of the solution was two per cent. 2. A few minims of this dropped into the conjunctival sac rendered the cornea and conjunctiva completely anæsthetic in from ten to fifteen minutes. 3. The anæsthesia lasted ten minutes. 4. There was slight mydriasis, which lasted a couple of hours. 5. There was some paresis of accommodation for a short time. 6. No irritation or pain followed the application of the solution, except a trifling smarting or burning for the first few seconds. (See *London Ophthalmic Review* for October.)

Since Dr. Koller presented to the profession the results of his experiments, Dr. Kœninstein has come forward with claims to priority in the discovery of the properties of this drug. He stated, at a meeting of the Society of Physicians of Vienna, held October 17th, that simultaneously with, but independently of, Dr. Koller, he had made experiments with cocaine applied to the eye, using a one per cent. solution of the hydrochlorate, and with much the same results as those obtained by Dr. Koller. He began his experiments toward the end of August, at the suggestion of Dr. Freud, making them first upon himself and the members of his family, then upon his acquaintances, and subsequently upon a number of patients in the ward of Dr. Scholz in the Vienna General Hospital. (See *London Medical Times* for Nov. 8th.)

Upon Dr. Koller, however, must rest the honor of the discovery of the cocaine anæsthesia of the cornea and conjunctiva, and of first directing the attention of the medical profession to it.

As soon as Dr. Noyes' communication was published in the *Medical Record*, I at once procured a very small quantity of a two per cent. solution of the cocaine hydrochlorate from New York, and with it I was enabled to perform several operations upon the eye and ear without pain, a few drops having been applied to the parts two or three times at intervals of five minutes. A short time afterward, having received a larger supply of a four per cent. solution, together with a quantity of the crystals, I had the pleasure of demonstrating, clinically, its anæsthetic properties, by performing several operations painlessly upon the eye, before the medical class of Niagara University and a number of medical gentlemen whom I had invited to be present. The operations at this time included excision of a pterygium, with a closure of the conjunctival wound with three sutures, tenotomy of the internal rectus muscle for convergent squint, in a boy twelve years old, and two Bowman's operations (slitting up the lower lachrymal canaliculus), followed by probing of the lachrymal passages in a nervous old Irish lady. Each patient declared there was no pain in the operation, and both spectators, patients and operator were delighted with the unmistakable and positive anæsthetic effects of the cocaine hydrochlorate there exhibited.

I have now performed a large number of operations upon the eyes of patients under its influence, using, for the most part, a four per cent. solution, instilling a drop or two of it every five minutes, till three applications have been made, when, in five minutes more, anæsthesia of the cornea and conjunctiva has generally been complete. In some patients, two applications have been sufficient, while in two or three the fourth one has seemed necessary. No unpleasant feeling attends the instillations, except occasionally a slight smarting or burning for a few seconds, and the anæsthesia lasts about fifteen to twenty minutes.

My patients have varied in age from ten to seventy-nine years, and in temperament from mild and quiet to very nervous and excitable. Many of the operations have, in themselves, been painful. But, with the aid of the local anæsthesia, I have conducted them, in every instance, without being disconcerted in any manner by the patient and without inflicting any suffering or pain. The operations have been quite varied, and include removal of foreign bodies imbedded in the cornea, cauterizing indolent corneal ulcers, tapping the anterior chamber, performing iridectomies, manipulation by Förster's method for artificially ripening cataract, extraction of senile cataracts, discission of congenital and secondary cataracts, strabismus operations, excision of pterygiums, and closing the wounds with sutures, excision of a polypoid growth from the caruncle and semilunar fold, slitting up the lachrymal canaliculi, passing the lachrymal probes, and some other procedures, the anæsthetic in every case annihilating, entirely, the pain ordinarily present without its use. In performing Bowman's operation and probing the nasal duct, I have followed the slitting up of the canaliculus with an injection of a few drops of the solution into the lachrymal sac, and pressing it as far as possible into the nasal duct. After a few minutes I have introduced large probes without distress. In strabismus operations I have carried two or three drops beneath the conjunctiva to the insertion of the muscle to be cut, after making the opening through the already anæsthetized conjunctiva.

I have used both two and four per cent. solutions, but principally the latter, since it has been more rapid and deeper in its effects. Besides the anæsthesia of the cornea and conjunctiva, I have noticed early, but not complete, dilation of the pupil and partial loss of accommodation. I have also observed that the conjunctiva has appeared distinctly pale and anæmic, while the anæsthetic influence continued, and that it bled less than usual when cut. No irritation has attended or followed its application.

Each case in which I have used this substance has had a special interest to me; but there is such a sameness in the manifestations of its effects and properties in different persons that to relate several cases would be unprofitable. I will, however, detail a little personal experience which it has been my privilege to obtain.

On November 18th, I arose from bed in the morning with a sensation of a foreign body in my left eye. I was unable, however, to find anything, and yet I could not get relief from my distress. At about 3.30 P. M. I called on my friend, Dr. F. W. Abbott, of this city, who, upon examination, found a minute "speck" imbedded in the cornea near the center of its anterior surface. He made several attempts to remove it, without success, first with a sharpened stick and then with a cataract needle. The moment the cornea was touched an uncontrollable spasm of the ocular and orbicular muscles took place, which entirely disconcerted his movements. There was also profuse lachrymation and a severe reflex spasm of the tympanic, Eustachian and palatial muscles, accompanied by a distressing tinnitus. After these fruitless efforts, it was suggested to try the cocaine hydrochlorate, when a couple of drops of a two per cent. solution were applied to the cornea. Immediately there was a slight burning or smarting which lasted but a few seconds. In two minutes the lachrymation, pain and spasm of the muscles of the eye and ear began to cease, and in three minutes the eye was entirely at ease in every respect. In four minutes two drops of a four per cent. solution were instilled, and in five, the doctor removed the foreign substance without any sensation whatever, except the *sound* of the "click" of the instrument, and the *sight* of the vibrations of the lamp-light concentrated upon the cornea with a lens. Neither was there any lachrymation or reflex spasm.

In about seven minutes after the instillation the pupil began to dilate, and the accommodation began at the same time to diminish. In twenty minutes the pupil was dilated to about two-thirds its full extent, remaining in this state, and not contractile one xposure to light, for four hours, when it commenced to diminish in size and was nearly normal in eight hours. The accommodation was affected but little; began to return in two hours, and had nearly regained its full power in six hours.

In a few cases I have used the cocaine hydrochlorate, four per cent. solution, in the ear. One case was that of a polypus, which I removed painlessly. In most instances the instillations into the auditory canal have been for aural pain and tinnitus, in which, however, the results have been negative. But in removing polypi, applying caustics, incising the membrana tympani, etc., I have no doubt that it will prove equally as potent in saving pain as in operations upon the eye.

When applied to the mucous membrane of the throat and nose, I find the anæsthetic effects positive and pronounced.

With such an interesting and satisfactory experience with this substance, I can but speak of it in terms of highest praise. I find it of the utmost service in nearly all operations upon the eye and in many upon the nose, throat and ear. It is *pre-eminently useful in cataract extractions*, as the absence of pain enables the patient to submit to the operation without agitation or movement, and there is no danger of rupture of the vitreousness from the vomiting which might follow the administration of chloroform or ether.

The strength of the preparation may range from two to twenty per cent., and may need to be varied according to certain peculiarities of the parts, or conditions, or idiosyncrasies of patients. I have found, as already stated, a four per cent. solution suitable for anæsthesia of the cornea and conjunctiva.

The solutions should also be fresh, as the anæsthetic properties seem to be destroyed by very slight changes. A four per cent. solution in my possession became so changed at the end of three weeks that I was unable to produce anæsthesia of the cornea and conjunctiva with it, although it dilated the pupil early and rapidly as before. This failure occurred in several cases; but in the first one it was particularly annoying.

Solutions may be applied in different ways, using a brush, a pipette, a syringe, paper or other material saturated with it, or, what seems to me most suitable for the eye, ear, nose and throat, a small and delicate spray, and especially since its high price makes economy in its use a matter of consideration.

My own interesting and most satisfactory experience with cocaine hydrochlorate, both upon myself and my patients, permits me to speak of it only in terms of confidence and commendation. I would not, however, lead my readers to believe that I can see only a bright side to its use, for I do recognize a dark side. In the first place, it may affect different persons in a different manner, possibly failing entirely in some. Secondly, when taken into the system in too large quantities it may produce unpleasant and toxic effects.

Just how much cocaine is necessary to produce toxic symptoms has not yet been fully determined. According to some experiments by Dr. R. J. Hall, of New York, upon himself (*New York Medical Journal* for December 6th), twenty minims of a four per cent. solution of the hydrochlorate (about four-fifths of a grain), could be taken hypodermically without constitutional effects; but a hypodermic injection of thirty-two minims of the same solution (about one and one-fourth grains) induced giddiness to the extent of his being unable to walk without staggering, quite severe nausea, cold perspiration and dilatation of the pupils. The nausea passed off in about twenty minutes, and the dizziness in about an hour and a half. The possible unpleasant effects of doses of more than one grain must, therefore, be borne in mind.

The experience of myself and that recorded by others has not only most fully corroborated the results of Dr. Koller's original observations, but it has also extended the range of application of cocaine anæsthesia far beyond the cornea and conjunctiva, till it is now used upon denuded surfaces and mucous membranes of all accessible parts of the body, and is also carried through wounds and by the hypodermic syringe deeply into tissues beneath the surface. When thus introduced beneath the skin, it destroys the sensibility of all the parts with which it comes into contact, and when it reaches the trunk of a sensitive nerve the branches of it given off beyond the point of contact are rendered more or less completely anæsthetic.

Thus cocaine may be made to reach and affect many parts of the body, and may be put to an infinite variety of uses. It may be used to allay the pain of many diseases and operations, and to assuage the throes of certain stages of childbirth by applying it to the perineum and labiæ. By using it hypodermically, even quite formidable operations can be executed with little suffering, the cocaine being thus applied directly to the parts to be cut. In this way, the eye-ball can be enucleated, tumors removed, and a variety of operations performed, it being only necessary to remember to restrict the amount introduced within the limits of safe dosage.—*Buffalo Med. and Surg. Journal.*

Scientific Items Obtainable from the Crematories.

General acquiescence in the process of cremation seems to be steadily growing among the people, if we may judge from the establishment of crematories. Some time ago an announcement was made from the LeMoyne Crematory that it would for the future be reserved for the service of the county in which it was built. We learn from the *Medical Record* that one is in process of erection in New York, one in New Orleans, one has been talked of in Chicago, and the *British Medical Journal* informs us that in the city of Edinburgh one has just been opened, whilst one is already in operation at Woking, one of the general burying-places of London.

We trust that some of our scientifically disposed men may seize the opportunity thus afforded of so arranging the process of cremation that it may yield valuable facts to the science of medicine. The estimation of the amount of "ash" obtainable from the human body, or from any animal organism, as far as we are aware, has never been ascertained on a large scale, but by a judicious arrangement at the foundation of any crematory an extensive series of observations could be instituted, which could not, under any other circumstances, be made. There will necessarily be kept, at the office of every such building, a record of age, name, sex, cause of death, etc., of every body cremated, and it would only be necessary to add the question of weight, the general condition of the body, and a few other items, to furnish a record of great interest in a scientific point of view. In order to do this satisfactorily, however, it will be necessary to institute, from the commencement, the practice of cremating the body in a shroud of definite quality, so that the ash resulting from the garments may interfere as little as possible with the definite amount of ash coming from the body itself. To this observance, by a very slight manœuver, the public could readily be educated. The ash from the body alone would be to them more sacred than the same mixed with the residue from the garments.

Whilst the crematories could furnish facts relative to the ash resulting from the body as a whole, we are satisfied that the pathologist would do well to turn his attention to the incineration of definite weights of definite organs in various pathological conditions.

It is quite possible, even, that a series of observations in this respect may throw some light on the question of tuberculosis. Even if it merely revealed to us that a given weight of tuberculous lung yielded only the same weight of ash as a normal lung, the fact would be worth recording. For this purpose it is a question whether fragments of many of the interesting specimens in many of our museums, which have been preserved in simple alcohol, could not with profit be incinerated, and the resulting information be appended to the record of the specimen. At any rate the chemical, incombustible constituents of diseased organs could, we think, with profit, be ascertained, with the hope that it would throw some light on the more complex question of morphology.

It is not necessary to say that valuable information may be obtained from the ash of such subjects as had been treated for a prolonged period with iron, mercury or arsenic. It may even happen that, by some extra care, the process of incineration may be the most efficient means of detecting poisoning by the last mentioned substance. Of course we do not forget that, without some precaution, the salts of arsenic and mercury would be volatilized, but whilst they are volatilized, they must also, at a reduced temperature, be again deposited, and it remains for the chemist to determine the most efficient contrivance for recognizing its deposition.

Lancing the Gums in Infants.

A RECENT paper on the subject of lancing the gums, read before the Medical Society of London, by Mr. Edward Owen, brought out a very strong sentiment in favor of this operation, and showed that it had by no means lost its hold upon the favor of English physicians, or become obsolete among them. One commentator—an F. R. C. S.—writes: "I should have thought no man could be in practice a month without having finally persuaded himself of the value of the gum lancet. Can not every practitioner look back on countless cases of convulsions—perhaps of hours' duration—cut short instantly, of intense reflex constitutional disturbance, high temperature and general febrile condition, great restlessness, great evident pain and distress, perhaps threatened convulsions, at once subsiding on lancing the gums?" The same writer says that the insufficient use of the lancet will often explain the failure to obtain relief from this measure, the incision failing to completely relieve the tension and free the tooth. He further suggests that dentition is not always a simple physiological process, as in children "with the large head," who especially need help; convulsions often accompanying the process in them. Likewise the reflex irritation of the brain which originates in the eruption of a tooth may determine the occurrence of that insidious disease, infantile paralysis. To him "it is incredible, if other men's experiences be like mine, that in looking back upon their work they do not accord their chief and most obvious triumphs to the use of the lancet and the gum lancet."

A more conservative view maintained by another writer is that dentition is a purely physiological process, "accompanied, it may be, with an abnormal excitability of the nerve centers, which renders the system more susceptible to accidental causes of disease, such as cold, shock, improper feeding;" that the gum lancet may be needful, though rarely; that inflammation of the gum is not a usual association in these cases; that tension of the gum is negatived by the absence of gaping after incision, and by the readiness with which the incision heals, and that favorable results—immediate relief of diarrhœa, bronchitis and convulsions—is not of such constant occurrence that it may not be regarded as a *post hoc*, etc.

That the practice of lancing the gums has fallen very much into desuetude is unquestionable. Whether such a fact is capable of justification may well be questioned. In itself a very simple operation and entirely devoid of danger, if there are good grounds for believing that it is even exceptionally beneficial, we are unwise if we withhold from our little patients, in suitable cases, the relief which it may be expected to confer. Now there are the very best authorities, old and recent, who maintain its utility. In the discussion above referred to, for instance, such well-known physicians as Drs. Clement Godson, Braxton, Hicks, Parramore, Hamilton Cartwright, C. J. Hare, Webb, Duncan, Ewart and Drew, testified strongly in its favor. Such testimony could, we believe, among our readers, be multiplied many fold. As Dr. Hicks remarked, the nervous economy of the child is exceedingly sensitive, and reflex disturbance may be readily set up by the eruption of the teeth. May it not be that most of the opposition to the practice results less from conviction or proof of its inutility than from that tendency to therapeutic nihilism now so prevalent, or perhaps to an unwillingness to resort to instrumental methods, especially cutting operations, common among a large class of physicians? We should be glad to elicit from our readers an expression of opinion on the subject, and especially from those experienced country physicians who have practiced it in so many hundreds, if not thousands, of cases.

Cholera and Personal Habits.

The letter from our regular correspondent in Paris, in the *Journal* of last week, was chiefly occupied with an account of the recent prevalence of epidemic cholera in that city; the writer selecting his facts principally from official reports and the discussions in the medical societies. This week we give another letter on the same subject, from an occasional correspondent, who derived his information more from personal observations and inquiries during a temporary stay in Paris while the disease was in progress. Both correspondents represent the disease as commencing among the poorest and most unsanitary part of the population, the "rag pickers," and in the quarters occupied by them. Both emphasize the statement, that those who were addicted to habits of dissipation and personal uncleanliness furnished by far the larger portion of those who fell victims to the disease. And another writer states that, of those admitted to the hospitals, at least 60 per cent. were known to be addicted to the habit of *drinking*.

The same general fact has been observed regarding every cholera epidemic of which we have a history. And yet, while our sanitarians and State Boards of Health have very properly issued circulars, urging upon the attention of municipal authorities and the people generally the necessity of strict cleanliness and ventilation of sewers, streets, houses, etc., as measures of prevention; comparatively slight allusions have been made to the equally important prophylactic effect of personal habits of temperance and virtuous living. We do not speak hastily when we express the opinion that indulgence in the use of fermented and distilled drinks, with the personal irregularities of life occasioned thereby, have in past epidemics of cholera determined more attacks of the disease than uncleanly streets, bad sewerage, and imperfect house ventilation combined. In saying this we do not desire to detract in the least degree from the importance of giving the strictest attention to the latter by municipalities and health authorities everywhere. But more efficient means should be employed to impress the fact upon the minds of all classes of people, that attacks of epidemic cholera are directly invited by personal excesses and habits of intemperance. Such habits not only invite attacks, but they greatly increase the tendency to fatal results when attacks do occur.—*Journal.*

Academy of Medicine of Cincinnati.

A. E. HEIGHWAY, M. D., Chairman, *pro tem.*; G. W. FACKLER, M. D., Secretary.

DR. THAD. A. REAMY REPORTED A CASE OF FATAL NARCOSIS IN AN ADULT FROM ONE-FOURTH GRAIN OF MORPHIA HYPODERMICALLY.

MRS. L., resident of Lexington, Ky., age, twenty-eight, medium height, blonde, light brown hair, light eyes, phlegmatic temperament, well developed, weighing 165 pounds.

She first menstruated at twelve years, was married at twenty, was confined at twenty-three, giving birth to a living, healthy, male child; labor, natural. Has had no miscarriages; and menstruation previous to confinement normal. Health, fair.

Since confinement, however, and at time of coming under observation, Sept. 28th, the following subjective symptoms were present: Pain in the pelvic region, especially in left side, constantly complained of, exaggerated at the menstrual period. There was a feeling of languor, easily fatigued on exertion. This condition not in harmony with patient's general appearance.

Physical examination: Heart, lungs, liver, sound; no evidence of any kidney trouble; uterus very slightly retroverted, with very slight degree of prolapsus; slight laceration of cervix left unilateral; a firm cicatricial plug at bottom of laceration; slight chronic cervical endometritis, with its characteristic discharge, present. Vagina more ample than normal, consequent upon laceration of vaginal portion of perineum.

This, however, was slight. External or integumentary portion of perineum undamaged. It was believed that the pelvic suffering was due to reflected pain from the cicatricial plug. At any rate it was believed that its removal, with closure of the cervical rent, was strongly indicated. It was also decided best to repair the perineal injury.

Sept. 29, 1884, the patient was etherized and the operation made, three silk sutures being placed in the cervix, and three satures of No. 28 silver wire were used in the vaginal repair. No denudation or suturing of the external perineal structures occurred.

The patient went under the ether, and behaved under it with the greatest satisfaction. At no time was anesthesia so profound as to cause stertorous breathing, or any approach to temporary suspension of respiration.

The time occupied in the two operations was thirty minutes. Quantity of ether quite small, though exact quantity not known. Dr. Hirons saw her during first half hour after she was taken to her bed, every few minutes. Restoration to consciousness was rapid and complete, patient engaging in cheerful and intelligent conversation with the nurse, Dr. Hirons and lady relatives who were present. She complained of slight pain in region of vaginal perineal stitches.

At the end of another half hour, *i. e.*, about an hour and a quarter to an hour and a half after the operation, the above-mentioned pain was quite severe, the patient urging upon Dr. H. measures of relief. Such symptoms are quite common after perineorraphy, especially upon fat subjects or persons of robust physical development.

It may be due partly to the greater tension of the sutures usually made in such subjects.

Dr. H. interrogated the patient as to whether she had ever taken opium or morphia in any form. She answered that she had not. One fourth of a grain of sulphate of morphia with one ninety-sixth of a grain of atropia, in solution, was now dissolved in water and injected into the arm, above the elbow, subcutaneously. As a few drops of the solution were lost, Dr. H. remarked that probably it would be necessary to repeat the injection in a few hours at least, in order to obtain relief.

In twenty minutes she ceased complaining of pain, resuming cheerful conversation. Her lady friends now left. Dr. H. returned to the patient's room an hour and a quarter after the injection was given, and found the patient unconscious, breathing heavily, skin, cold and damp, pulse, feeble and rapid, pupils contracted.

Dr. Reamy who had gone down into the city after the operation, was telephoned for. One ninety-sixth of a grain of atropia, however, was immediately injected by Dr. Hirons. Attempts were likewise made to arouse the patient; heat was applied to extremities, with friction, cold water dashed upon the face, etc. On Dr. R.'s arrival another ninety-sixth of a grain of atropia was injected; further efforts were made to arouse the patient. Infusion of strong coffee was injected; friction over the body, cold water dashed on the face, and so on. Respiration was extremely slow, not more than six or eight per minute, and quite shallow. Pulse rapid, 120 per minute. Mustard plasters were applied over the extremities and abdomen; the head and trunk of patient were elevated, and every possible effort made to rouse her. Dr. E. W. Mitchell now joined in the consultation, remaining to the close.

The electric (faradic) current was now applied, one pole as nearly as could be done over the origin of the phrenic, alternating this position by changing it over the pneumogastrics; the other pole of the battery being placed over the diaphragm, and at intervals carried over the muscles of the chest. Intermissions were allowed in the application of the current. At first, respiration seemed to be improved under the influence of this agent; it was deeper and more frequent. But this ray of hope was soon extinguished; for while as the sponge was carried over the muscles of the chest they responded most violently to the current, it was nevertheless painfully apparent that the respiratory efforts were not improving, but becoming less frequent and quite shallow. The heart's action was still more than a hundred, and quite feeble. The pupils, which, as above stated, had been contracted to an extreme degree, were now not so markedly contracted, but had apparently responded slightly to the influence of the atropia. Artificial respiration was now resorted to, and carried on most earnestly without intermission, except once or twice for the purpose of again testing the current, until after the heart had ceased to beat. As the pupils had responded only slightly, and did not further respond, although time had elapsed, and as respiration was not improved, it was decided upon consultation to give a hundred-and-twentieth of a grain of atropia hypodermically, in addition to what had already been administered, notwithstanding the rapid action of the heart was considered to contraindicate the employment of a larger amount of the drug than had been done. This last administration of atropia followed the third injection of the ninety-sixth of a grain in about forty minutes.

The patient breathed her last in a state of profound coma, eight hours and a half after administration of the morphia.

Among other striking points in the case may be mentioned:

1. The time elapsing between the injection and its effects.

2. The fatal effects following so small a quantity of morphia.

3. The rapidity of the heart's action after complete narcosis was present.

4. The stubborn refusal of response to antidotal measures employed.

5. Possibility of morphia not causing the death.

DISCUSSION.

Considerable discussion followed upon the report of this case, but our space will not permit of our presenting only a very small portion of it. In such cases accidents will happen—they can not be provided against—and no one of sense would think of attaching blame to any one.—Ed.

Dr. S. Nickles remarked that while very serious symptoms have been known to follow the administration of even less than a quarter grain of morphia, the case just reported was the first, so far as he was aware, in which the death of a healthy adult resulted from so small a dose. According to Husemann, Pflanzenstoffe, second edition, 1884, the smallest dose which has caused death was one grain. This had been given to a girl, aged nineteen years, in divided doses, within six hours. Death resulted in thirteen hours. Husemann also refers to a case reported by Taylor, in which half a grain was supposed to have destroyed an unhealthy lady, but considers it a doubtful case. Not infrequently after hypodermic injection of small doses there takes place sudden prostration with marked giddiness and very difficult breathing. From the rapidity of action it is inferred that the medicine was thrown into a blood vessel, for it is now well-established that such effects take place in a few seconds after intravenous injections.

The case reported by Prof. Reamy is a doubtful one. The patient died eight hours after a subcutaneous injection of a quarter grain of morphia, with such symptoms as are usually produced by large or toxic doses. Administered subcutaneously morphia produces its characteristic action upon the cerebrum in from five to twenty minutes. But in the case reported the narcotism did not take place before the lapse of an hour. Then the patient became comatose, the pupils contracted strongly, the respiratory movements became slow and shallow, and the pulse rapid and feeble. Notwithstanding the use of the various means usually resorted to in morphia poisoning, the patient succumbed in about eight hours. No *post-mortem* examination was made, and hence, to say the least, the case is a very doubtful one. It is not unlikely that a *post-mortem* examination would have revealed a cerebral hemorrhage.

However, if the case be considered one of medical poisoning by so small a dose as a quarter grain of morphia, it will show that such a dose, administered subcutaneously to a patient unaccustomed to the action of morphia, is not a safe one. Some authors insist that the first hypodermic dose shall not exceed one-sixth of a grain.

The case is certainly a remarkable one in so far as death resulted, notwithstanding that the patient, a healthy, strong woman, was seen soon after narcosis began, and was at once placed under treatment. At no time did the measures employed diminish the coma, increase the respirations, augment the force of the pulse, or otherwise alter the symptoms, which were supposed to be due to the quarter grain of morphia. This negative result of the prolonged efforts to save the patient is sufficient to justify the opinion that there was present some other cause of the coma. Usually in poisoning by lethal doses of morphia, or opium, the antidotal and antagonistic treatment, for a time at least, produces very obvious amelioration of the symptoms. And, where these measures are efficiently employed, they usually rapidly improve the symptoms and save life, even when many times the lethal dose has been taken.

Morphia and opium poisoning being so frequent, the speaker thought it proper to make a few remarks on the treatment. Generally the poison is taken *per os*. In such case the first indication is the removal of the contents of the stomach. Morphia is slowly absorbed, and even after the lapse of hours sufficient may remain in the stomach to destroy the patient. If the patient be seen early, before coma has taken place, means to excite vomiting are proper. Irritant emetics, especially sulphate of zinc and sulphate of copper, may be employed. But these emetics should be used in the ordinary doses, and not in quantities of half a drachm, as recommended by some authors. If the stomach is insusceptible to the action of several ten-grain doses of sulphate of zinc, larger doses will prove equally inactive. Absorption of the salt will occur, and the depressing effect of the morphia will be increased. Even when the stomach is not benumbed by a narcotic, moderate doses of sulphate of zinc more certainly produce the emetic effect than large doses. Toulmonche observed that doses of from six to twelve grains constantly caused vomiting, while doses of fifteen grains and more constantly failed to have this effect, while they generally produced purging. The vomiting process may be hastened by titillation of the fauces and the administration of large quantities of tepid water. As an antidote tannic acid should be given; it will render the morphia less soluble, or if the latter be in solution, will form with it a salt which is less readily absorbed. From twenty to forty grains of tannin will usually suffice.

Partly as an antidote and partly as an antagonist, a strong infusion of coffee should be given. Its tannic acid will retard the absorption of the morphia, while its active principle, the caffein, will antagonize the general action of the poison by stimulating respiration, augmenting the circulation and elevating the temperature. If the patient be comatose, vomiting can not be induced. Then the stomach pump should be employed to evacuate the contents of the stomach. Instead of water it will be prudent to employ an infusion of coffee to wash out the stomach.

The second indication when the poison was ingested, and the only one when it was thrown into the subcutaneous tissue, is stimulation of the central nervous system. Various measures are recommended, as flagellation, friction of the surface, ambulation, painful applications of the faradic current, and douches of cold water. When the patient has not yet become comatose, these means are often useful, but usually completely fail after profound coma and great prostration have taken place. Liebermeister reported a case of severe morphia poisoning, in which the douche of cold water applied at intervals of ten to fifteen minutes for six hours proved successful. At the same time, however, the patient was kept in a warm bath. Perhaps the latter measure had much to do with the recovery, for heat is a powerful stimulant of the respiratory center and the heart.

During profound morphia narcosis the temperature of the body falls several degrees. Hence, the patient's room should be kept warm, the patient should be covered with warm blankets, and bottles containing warm water, or heated bricks, should be applied to his extremities. Frequently all these means fail to increase the respiratory process and the heart's action. Then recourse must be had to the most powerful means of stimulating these functions, namely, artificial respiration and subcutaneous injections of atropine. Various methods of practicing artificial respiration have been recommended. Schüller succeeded in two cases with the following simple method: Applying his hands along the thorax from above downward, he grasped the right and left border of the chest, and forcibly drew the ribs outward and upward, and then quickly pressed them back toward the abdominal cavity. These movements were repeated rhythmically, so as to correspond to the normal respiratory movements. An assistant at the same time maintained complete flexion of the thighs, in order to relax the abdominal parietes. In order to restore the normal frequency of the respirations, the faradic current has been strongly recommended. The electrodes are applied in such a manner as to cause the current to pass through the phrenic nerves, first on one side, and after an interval on the other. This may be accomplished by firmly applying one electrode just behind and below the middle of the posterior border of the sterno-cleido mastoid muscle, and the other electrode in the supraclavicular space. As soon as the diaphragm has contracted, one of the electrodes should be removed; and the abdominal surface should be compressed, in order to promote expiration. After a few seconds the current should again be applied, and this be followed by abdominal compression. The application of the current should be repeated about fifteen times in a minute.

Recourse should also be had to atropine. Its utility consists not in a complete antagonism to morphia, but in an antagonistic action on the respiratory centre and heart. Hence the conditions of the respiratory and circulatory functions are the index to the use of atropine. Abnormal slowness of the respiratory process and feebleness of the pulse indicate its use. According to the reports of good observers (Johnson, Binz, Kobert, Fothergill), soon after the hypodermic injection of atropine the respirations become accelerated and the pulse stronger. How much atropine should be injected? Evidently this will depend on the condition of the functions to be excited, and the effect of the first moderate dose. Some authors recommend the small dose of one-fortieth of a grain. If the respirations should become increased in frequency, a few repititions of this dose may suffice; but should no effect have taken place in ten or fifteen minutes, the next dose should be larger, say one-twentieth, or even one-tenth of a grain. Johnson, who had perhaps greater experience in the treatment of opium poisoning than any other physician, having treated more than three hundred cases, employed large doses, from one-third to one-half grain. According to him, the cold douche, artificial respiration, the application of electricity, and all kinds of stimulation are usually of no utility; while the administration of atropine is speedily followed by wonderful effects, the pulse becoming stronger, the respirations more rapid and tranquil, and the coma a peaceful slumber, from which, in a few hours, the patient awakes fully conscious.

Dr. Reamy, in concluding the discussion, said: My object in reporting this case to the Academy finds its explanation in many facts. The case was extraordinary. If there is any risk, unseen; if now and then, in the use of a drug which we are in the habit of prescribing so constantly; a drug without whose influence we could scarcely practice medicine and surgery at all; a drug that not only gives relief from pain, but eases and smooths the journey down to the grave for many a patient who has an incurable disease—given for this alone, morphia is an inestimable boon—not only so, but a drug which is probably more potent than all other agents combined, in the cure of certain forms of inflammation, or at least in so modifying the progress and results, especially of that dangerous and painful inflammation of the peritoneum and other serous structures, whether of traumatic or idiopathic origin, as to signally reduce mortality. If we are to be limited in our use of this drug, if there is more danger in it than we have foreseen, perils that we have not heretofore recognized, it is the duty of every man who has had adverse experience with it, to present that experience. I need not say how grateful I am to the gentlemen who have spoken, for the generosity and the great conservatism which has characterized the discussion of the treatment of this case. I knew very well that in this scientific body there would be not a single gentleman who would make an attack upon the case in any of its aspects, except in the true scientific spirit; indeed, that each speaker must conscientiously believe that his words are justified on the same ground that I believed it was my duty to report the case, with the symptoms it presented and the treatment that was employed. Every word which was spoken in criticism of the treatment was intended by its author to improve our knowledge and render us more capable to treat other cases, should they occur—prophetic words of warning.

Now, I need not say very much in defense of the treatment of this case; and I beg you to know that what I say in justification of the treatment of this case, I say with just the same frank purpose which led to the treatment employed; not for the purpose of special pleading, making the case appear better than it was, or worse, but only for the purpose of finding out and testing the truth. I beg you to consider several questions that have been suggested by the statements of certain members in their discussion, but have not been fully brought out. The first point to be considered is found in the first startling statement in the report, that this woman had these symptoms from the administration of but a *quarter of a grain.* This fact will be referred to again.

I expected the remedies that we were employing at every moment to prove successful. I was so occupied with the case that I thought of little but the immediate treatment. The woman was perfectly healthy, so far as I was able to discover in the thorough examination that I invariably give my patients before an operation. It was only a short time before the attack that the woman had willingly, and in a cheerful humor, placed herself upon the operating table, saying that she believed me when I told her that there was no danger in the operation itself. She was young and handsome, the mother of one child, the wife of a young man in business; she was respectably and highly connected. To add still more to the bitterness of my feelings at the unfortunate termination of the case, was the fact that she had submitted to an operation that was not absolutely necessary, but under the belief on my part and on her part, that the operation would result in her relief from the suffering she had been compelled to endure. But for the operation, the morphia would not have been administered. Still, I acted on my best judgment, founded on a large experience in such cases. I acted conscientiously in her interest as I believed. When I considered that the woman's heart was sound; that her vital organs were healthy, so far as I could ascertain by the most critical examination, I said to myself that with the woman in this condition, the operation, simply an unimportant one, as Dr. Whittaker has said, an operation which I had made hundreds of times—is this woman in this condition of narcosis from a quarter of a grain of morphia, or can other causes exist?

As to the atropia, I asked Dr. Hirons, "How much atropia did you give her with the morphia?" He said, "A ninety-sixth of a grain." "How much after you telephoned for me?" "Another ninety-sixth, and now another ninety-sixth since your arrival." I observed that the pupils had not responded, but here was this violent action of the heart. It occurred to me that a lethal dose of morphine ought to have reduced the action of the heart. When the question occurred as to giving a larger dose of atropia, we were not ignorant of the fact that the remedy should be given for the relief of the respiratory centers, but we were also aware that the books said—and my own experience also taught me—that the action of the heart ought to have been influenced also, assuming morphia narcosis only. When the heart was acting so unusually, and when I considered that the woman was suffering from morphia narcosis, and from so small a dose as a quarter of a grain, I was admonished to halt, reasoning thus: "If I increase the quantity of atropia in this condition of the heart, may I not do harm, since the atropia acts by stimulating the cardiac ganglia of the sympathetic, as well as paralyzing the pneumogastric terminals? It must therefore act doubly injuriously in the case of rapid heart, increasing active centers and lessening power of inhibitory control."

The question raised by Dr. Zinke occurred to me: "Was there nothing in the operation or elsewhere that could produce this condition?" The pupils were equally contracted, so that the question of serious cerebral hemorrhage could hardly be entertained. Still the question of apoplexy came up, and the bare possibility that it did exist still remains, and the fear that some such condition might exist restrained me to some extent. The marked cerebral symptoms from full doses of atropia, headache, vertigo, intra-cranial pressure, etc., were, in view of such a possible state, considered. Granting such a condition, and atropia in full doses could only hasten a fatal issue. All these questions were considered, and it was decided to give her but a ninety-sixth more —this being the third ninety-sixth that she had received. After this the pupils responded a very little. I remarked to Dr. Mitchell that the oculists say that belladonna reduces intra-ocular tension, produces paresis of the nerves of accommodation, etc., but they do not tell us that the contraction of the pupil under opium, or the dilatation of the pupil under atropia, is any test of the action of either drug as antagonists. It is given as one of the points to guide us, but in this case is valueless; but the great sign is the one which has been given with such emphasis, and that is, to give atropia until it stimulates the respiratory centers. But in connection with the fact that the heart was beating so rapidly, I remembered the fact—and I have since looked over the authorities that have written on this point especially—and find that the quantity of opium that has been taken is to be considered in deciding what quantity of atropia is to be given for its relief. You must consider the question in the light of these facts, since they raise serious doubts as to the cause of paralysis of these centers in the case in hand.

We consulted together in regard to what ought to be done, and we finally gave but one one-hundred-and-twentieth of a grain more. It was a question of doubt. I quoted at the time to my consultants, almost verbatim, this language (Bartholow's "Therapeutics," fifth edition, p. 519): "It can not be too strongly insisted on in this connection, that belladonna, in too great quantity, or too long in action, exhausts the irritability of the unstriped muscular fiber, and thus induces the very state which its administration was intended to relieve. The state of the pupil, the action of the heart, and the condition of the reflex movements, are the guides to the administration of belladonna in cases of opium narcosis. The smallest quantity of belladonna which will dilate the pupil, raise the tension of the arterial system, deepen the respiration and re-establish the reflex excitability, should be used. The author has a strong conviction, arising from some painful personal experience, that it is a fatal error to attempt to restore a patient in opium narcosis to complete consciousness by repeated doses of belladonna. The action of these agents combined is to produce profound stupor, and this is not a condition of danger so long as the pulse, respiration and reflex movements are in good condition. To substitute belladonna for opium narcosis is only increasing the hazard under which the patient is already struggling."

You have heard to-night that it has required stronger doses of belladonna to destroy life than was given in this case. There is no case on record in which so small a quantity as this has caused death, but this proves nothing in the present case, certainly not that more would not have done harm; nor could the dose that might be administered to a healthy individual be taken as a guide in a case like this. That it was right to give no more, I believe; that it was a blunder to give no more, I can not consent. Taking all the circumstances into account, I acted on the best judgment I could command. That I erred, is of course possible. In the true spirit of science, my brethren have made the statement—each of three have said that, "if anything could have been added to the treatment, it would have been in this direction;" and yet another, in the same spirit, and in the light of the facts, has said that if a grain and a half had been given, the patient would have been no better off—he doubted if she would have been as well. If it had been given, every one, almost, would have said, "That woman died ultimately of the narcosis of belladonna in conjunction with the narcosis of opium. She suffered from the intensified action of bad therapy." So far as the faradic current was concerned, it was stated in the report that the sponge was applied over the phrenic nerve a good deal more of the time than to the pneumogastric. While Flint says that it can do no good, it is the custom to apply it over the pneumogastric, as well as over the region of the phrenic. Bartholow states that he has obtained excellent results from it applied over the muscles of the chest. Artificial respiration, coffee, stimulants and the belladonna (to the degree that was considered safe), were faithfully employed, but, unfortunately, the patient died.

Wood, in his "Therapeutics," third edition, page 125, says: "The smallest dose of morphia proving fatal to an adult was the sixth of a grain," and in a foot note in the same edition, and on the same page, he states that the particular case to which he refers, was one in which the remedy was administered hypodermically. He adds in a foot note that a large number of cases can now be collected in which an equally small dose has proved fatal, so that there can be no doubt that a quarter of a grain may cause death.

What an idiosyncrasy is we do not know, and it is highly improper for us to say that, because the patient died of so small a dose, she must have died of some other cause. We must accept the existence of idiosyncrasies, whether we understand them or not. The same patient may vary in this regard at different times.

Battle of the Doc's.

A MAN in Macon attempted suicide some weeks ago, and the *Telegraph and Messenger* came out the next morning with the following:

Who saved Christopher?
"I," said Stevens;
"With sulphate of atropia
I fought the morphia;
I saved Christopher."

Who saved Christopher?
"I," said Blackshear;
"With the sweet simplicity
Of induced electricity;
I saved Christopher."

Well, who saved Christopher?
"I," said Moore;
"I stood by his side
While the physic was tried;
I saved Christopher."

But what saved Christopher?
"The pump," said Mettauer;
"The stomach pump's spout
Turned the pizen all out;
The pump saved Christopher."

—*Atlanta Med. and Surg. Journal.*

Microscopy.

Micrococci of Pneumonia.

The greater number of these micrococci are surrounded by a more or less broad layer resembling an envelope or capsule, colored slightly blue or red by gentian violet or fuchsin respectively, and usually sharply defined externally. Sometimes two or three are inclosed in the same envelope, but they are never collected into zoöglœa colonies. These envelopes are soluble in water and dilute alkalies, but insoluble in acids. They are colored by eosin, especially by weak solutions, acting in twenty-four hours. The envelopes appear to be highly characteristic of the micrococci of pneumonia. They probably belong to the acme of the disease, not being found after the sixth day.—[*Royal Jour. of Microscopy —The Microscope.*

Morbid Muscular Changes in Typhus.

The results of microscopic examination of the muscles in a number of cases of typhoid, typhus and relapsing fevers, undertaken by Dr. Plushtschevsky, under the direction of Prof. Ivanovsky, have recently been published in monographic form. There were 13 cases of typhoid, or enteric, 2 of typhus and 4 of relapsing fever, or 19 cases in all, examined. The specimens were taken in each case from the following muscles, viz.: diaphragm, biceps of arm, superficial common flexor of the fingers, rectus abdominalis, one of the femoral adductors, and one of the muscles of the calf, generally the gastrochemic. A summary of the results shows that:—

1st. In all the typhous forms there is a granular degeneration of the muscles, the condition being most intense in typhus, less so in relapsing fever, and least so in typhoid or enteric fever.

2d. Tumefaction and proliferation of the muscular nuclei, unattended by any observable change in the striations of contractile substance, are present in all the typhous forms, being most marked in relapsing fever, less so in typhus, and least so in typhoid.

3d. In almost all the muscles there is a pigmentation of the contractile substance, this feature being constant and most marked in the diaphragm, but being present in muscles otherwise normal, and in those in which the nuclei are tumefied and proliferated.

4th. The oval and spindle-shaped cells of the areolar membrane of the fasciculi (perimysium internum) are tumefied and proliferated.

5th. The epitheloid lining of the vessels exhibits swelling and granular degeneration, accompanied in relapsing fever and typhus with proliferation of the nuclei. Only the nuclei of the muscular coat of the vessels shows swelling.

6th. In seven cases of typhoid there was present hyaline degeneration of the contractile substance, with necrosis of the muscular fibers (*Coagulations Nekrose* of Cohnheim). The feature (necrosis) is also constantly met with in the diaphragm, adductors and rectus abdominalis.

7th. In two cases of typhoid there was found hyaline degeneration of the capillaries and of the middle coat of the smaller arteries.

8th. In four cases of typhoid, the axis cylinders of the peripheral nerves, between the primary and muscular bundles, show varicose spindle-shaped tumefactions and a small amount of granular change. This feature was found in one case of relapsing fever, the axis cylinder being disintegrated. —[*Mediz. Jour.—St. Louis Med. and Surg. Jour.*

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Tuberculosis Produced by Inoculation with Serous Effusions.

At the vacation meeting of the Societè Medicale des Hopitaux de Paris, M. Gombault read, in his own name and that of his collaborator, M. Cuhffard, a memoire epitomizing the results of their joint investigations of the tuberculous virulence of the liquids of effusion from the pleura and peritoneum. The author says: "The search for bacilli in pleural serosities is most generally unfruitful of results, and for this reason we chose this fluid for inoculation on guinea pigs. We preferred inoculations to cultivations because the latter are difficult and the same results are arrived at by the other process. Inoculations were made by abdominal injection—from three to four grammes (45 to 60 minims) of the fluid being injected into the peritoneum at once.

We thus made 23 inoculations, nine of which were negative and ten positive in their results. Four of the animals died from accidental causes. In the positive cases we found the lungs, spleen and liver crammed full of tubercles, and everywhere we found the bacillus of Koch. Thus in more than half the cases, pleural liquid alone has given birth to tuberculosis by inoculation. We are assured that the tuberculosis is due to the liquid, as test animals not inoculated and kept along side of those that were inoculated, have shown no signs of the disease. How could this fluid have caused tuberculosis? That we found no bacilli in it is no proof that they might not have been there in small numbers. Perhaps there were zoöglœa there which we could not find. As to the degrees of virulence of the liquids of effusion we are not yet able to speak certainly. That the degree is not great, however, is attested by the fact that so large a quantity of the fluid was injected and with such uncertain results." The discussion which followed the paper was taken part in by MM. Dejerine and Debove. The former stated that if the fluids of empyema were allowed to stand awhile, and the sediment examined carefully, the bacillus tuberculi could always be found. The latter stated that he had searched in vain, on the contrary, for bacillus in a serous effusion accompanying a most undoubtable case of tuberculosis. M. Gombault said in reply, that while bacillus tuberculi could always be found in purulent effusions, they could never, or rarely, be detected in serous or sero-fibrinous effusions, on account of the rapid coagulation of the liquid.—*St. Louis Med. and Surg. Jour.*

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How to Administer Santonine.—Kuechenmeister has shown that lumbrici lived in a mixture of albumen, santonine and water, bnt they succumbed in a few minutes in an oily mixture of santonine. Experience has proven the necessity of direct contract. Santonine powder or troches are not a good way of administration, for the santonine is then mostly absorbed in the stomach. The only rational preparation is an oily mixture which is slowly absorbed in the intestines. In any other mode it has a toxic effect with many, but given with ol. ricini is not disagreeable, and very efficient.—*Revue de Science Medicale.*

Gleanings.

PROTECTION AGAINST A SECOND ATTACK OF SYPHILIS.—We have seen a statement made that every mother of a syphilitic infant may be affected with a variety of the disease, which may or may not be accompanied by secondary or tertiary lesions, but which is *protection* against another attack. Mr. Hutchinson recognizes this fact in the distinction which he makes between "blood syphilis" and "chancre syphilis." Ricord explains it on the so-called "choe en retour principle," *i. e.*, the poisoning of the mother through the diseased fetus. The proof of this doctrine lies in two points, neither of which has ever, as yet, been controverted. The first is the well-known law of Colles: That a child with inherited syphilis will never infect its own mother, though it can infect a healthy wet-nurse. Since this law was first laid down by the acute observer whose name it bears, but two cases have ever been brought forward as exceptions to it. One by Brizio Cochi, an Italian, in 1856, and one by Müller, in 1861. But Kassowitz, who quotes these cases in his work, adds that they are of no value scientifically, as they are neither accurately nor scientifically described.

A young man was examined about three weeks after marriage. A hard chancre was discovered upon the frenum, which he asserted appeared ten days before marriage, and of the nature of which he was unaware. He afterward acknowledged to having had an impure connection with a woman of the town some weeks before the appearance of the chancre. He had had repeated connections with his wife, but a careful examination of her showed neither chancre, mucous patch, nor anything abnormal. The husband afterward had secondary trouble severely, but the wife, though she has twice aborted, has never shown any symptoms of specific disease, now some sixteen or eighteen months since her marriage. This case is certainly one of strong evidence. The woman was frequently exposed to the views of the chancre with perfect impunity. Neither before nor since marriage has she ever shown a symptom of syphilis, though always under observation and repeatedly examined.

E. H., a healthy nurse-maid, sixteen years old, became pregnant by her employer, who had contracted syphilis several years previous to this event. She continued well and strong during her pregnancy, and was delivered at full term of a fine-looking child, which, however, at five weeks showed roseola, mucous patches and snuffles. It was treated and recovered, had two relapses, from which it also recovered under anti-syphilitic treatment. The mother showed no signs at any time of syphilis, at least none that could be detected.

CHLOROFORMING.—Mr. Osborn, the chloroformist to St. Thomas' Hospital, London, makes the following points, which are important enough to bear frequent quotation:

Dilatation of the pupils is a sign that the anesthetic has been pushed far enough, and its administration should be discontinued.

Flaccidity of the limbs is no sign of cutaneous insensibility.

The inhalation of ether may produce exanthematous patches on the face and thorax. Cases have been removed from the operating table under the impression that an outbreak of an eruptive fever had begun, and that the case was unfit for operation.

The origin of this phenomenon is to be found in paralysis of the vasomotor nerves. Moreover, if genuine skin eruption be present, it is, by the same cause, made more prominent.

A false impression may be conveyed when feeling the pulse, where the patient, lying upon the arm, compresses the main artery.

Chloroform is better for all operations about the mouth, staphylorraphy, excision of tongue, etc., since ether not only excites the flow of saliva and increases vascularity, but the mouth being open, they return sooner to consciousness. —*New Eng. Med. Mo.*

THE DIAGNOSIS OF SCIATICA.—A diagnostic point in sciatica is given by De Beurmann, which we have never seen alluded to. The patient, lying on his back, with the muscles of the leg and back relaxed, the affected leg is raised while in complete extension, and flexed upon the abdomen. This causes marked pain in the course of the sciatic, especially intense at the sciatic notch, and the movement is resisted. If, then, the limb be lowered, and while the leg is flexed on the thigh, the latter is again carried up on to the pelvis, no pain will be felt. This phenomenon depends on the fact, verified by De Beurmann in experiments on the cadaver, that great tension of the sciatic is exerted by flexion of the thigh when the leg is extended, but almost none when the leg is flexed.

In the diagnosis of sciatica from crural neuralgia, affection of the femur, or coxalgia, in all of which diseases the position of the limb and seat of the pain may be similar, this manœuver is of value. If the nerve trunk is free of disease, there will be no difference in the amount of pain caused by the extension or relaxation of the nerve by the different positions indicated. In other words, in affections other than sciatica, the movements given to the coxo-femoral articulation will be equally painful whether the leg is extended or flexed on the thigh.—*Boston M. and S. Jour.*

Salicylic Acid a Cure for Tic Douloureux.—We frequently meet in our practice cases of tic douloureux, that often so exceedingly painful neuralgia of the fifth nerve, where an operation seems to promise the only radical cure. If we hear of a remedy which is said to have the same effect as the surgical interference, we become doubtful; but if no less reliable an authority than Prof. Nussbaum assures of the fact, our hope increases. Recently a number of such cases had been sent to N. for the purpose of having the operation performed, and, after a number of carefully-instituted experiments, this great surgeon recommends a trial with salicylic acid before proceeding to stretching or to resection of the nerve. In all the recently-sent cases he first tried this remedy, and he found it in every one a radical cure; not only a palliative effect, but really an utter disappearance of the painful disease, was the result in every case. Especially in cases of rheumatic nature, N. is positive of having discovered in salicylic acid a specific for tic douloureux. He administered the drug in the following manner: ℞.—Acidi salicylici, gr. 3⅓; sodii salicylatis, gr. 32; M. ft. pulv. Within 24 hours the patient takes from four to six of such powders.—*Med. and Surg. Reporter.*

A Practical Point in the Treatment of Pleural Effusions.—Dr. Broadbent (*Lancet*), in a clinical lecture, says that when he hears distinct bronchial breathing generally over the chest in cases of pleural effusion, he feels sure that a consolidated lung is immersed in the fluid, and he consequently does not tap unless the symptoms are so urgent as to demand interference. A solidified lung can not, of course, expand, as does one which is simply collapsed, or even compressed, unless it is bound down by adhesions; and experience has shown him that, on the resolution of the pneumonia, the fluid is usually rapidly absorbed.

He seems to hold the sound views that, with grave symptoms, a pleural effusion should be withdrawn, whatever the complication; that the course of moderate effusion may often be shortened by tapping; but that, if the lung be consolidated—one evidence of which is the persistence of bronchial respiration over the whole, or a large part, of the chest—it is better to wait, if the condition of the patient warrants such a course.—*Boston M. and S. Jour.*

Liniment for Rheumatism.—The *Therap. Review* says: Methyl salicylate (oil of wintergreen) mixed with an equal quantity of olive oil or linimentum saponis, applied externally to affected parts in rheumatism, affords instant relief, and having a pleasant odor, is very agreeable.

Prescription for Diphtheria.—Mur. pilocarpin, gr. iss.; pepsin (Jensen's preferred), ʒss; muriatic acid, gtt. x.: aquæ, ℥ viij. M. S. Teaspoonful every hour.

Book Notices.

Modern Medical Therapeutics: A Compendium of Recent Formulæ and Specific Therapeutical Directions from the Practice of Eminent Contemporary Physicians—American and Foreign. By George H. Napheys, A.M., M.D., etc. Edited by Joseph F. Edwards, M.D., and D. G. Brinton, M.D. Eighth edition, enlarged and revised. Philadelphia: D. G. Brinton, 115 S. Seventh Street. Cincinnati: R. Clarke & Co. Price, $4.00.

This is an octavo volume of over 600 pages. It has proven to be a very popular work indeed, having within a short time reached an eighth edition.

It may be said correctly that every physician should be able to write his own prescriptions, for having obtained a knowledge of physiology, chemistry, pathology, the causes and symptoms of diseases, therapeutics, materia medica, he possesses all the knowledge necessary for meeting the indications of a disease by proper remedies. But while this is true, it is also true that the oldest and most learned practitioner of medicine can learn better methods of exhibiting remedies that he has used for years. Prescription-making may be regarded almost a department of medicine of itself. It is an art in which an individual, very thoroughly versed in all the branches mentioned above, may display great ignorance. In fact, in consequence of a want of proper knowledge of it, his familiarity with those branches may be made of almost no practical use. So far from leading him to become a mere formularum præscriptor, as stated in the preface, the volume, in consequence of the diversity it exhibits in making formulas or prescriptions, teaches the young practitioner independence of thought, while the care with which the indications calling for particular remedies or combinations are given, awakens and instructs his powers of clinical observation. We would advise every physician beginning practice to procure the work.

THE THERAPEUTICS OF THE RESPIRATORY PASSAGES. By Prosser James, M.D., Lecturer on Materia Medica and Therapeutics in the London Hospital Medical College, Physician to the Hospital for Diseases of the Throat and Chest, etc. 8vo. Pp. 316. New York: William Wood & Co. Cincinnati: R. Clarke & Co.

This volume constitutes the November number, 1884, of "Wood's Library of Standard Medical Authors." As indicated by the title-page, the work is a description of the remedies, and methods of using them, of the diseases of the respiratory passages. It is not designed for students, as stated in the preface, although it is hoped that senior students, as well as practitioners, may peruse it with profit, but it is mainly intended for those who have left the schools and entered upon the responsibilities of practice.

There are nineteen chapters, in which are described respiration, food and diet; variations in the digestive process, aliments as remedies, iron, phosphorus and its compounds, stimulants, transfusion, exercise and rest, antipyretics, topical pneumatics, etc.

To the practitioner who desires to study the action of remedies—not drugs only—in the various diseases of the different respiratory organs, the work will render valuable assistance. It contains much that can not be found elsewhere.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by William Pepper, M.D., LL.D., Provost and Professor of the Theory and Practice and of Clinical Medicine in the University of Pennsylvania, etc. Assisted by Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume I.—Pathology and General Diseases. Large 8vo. Pp. 1,094. Philadelphia: Lea Bros. & Co. Cincinnati: Horace Stacy. 1885.

In our December issue we announced the near publication of this very fine work, which will be sold by subscription only. Although we mentioned the month of February when the first volume would be issued, we have already received it, showing that the publishers are rather before, than behind time, in their promises.

We are too far advanced with the present number of the MEDICAL NEWS to give in it the notice the work merits. In our next number we will endeavor to give it proper attention. We will only say now that it is a work which will be especially valuable to American physicians. The writers of it are the most eminent medical men of the United States—East and West—and are familiar with the diseases of the country. There will be five volumes of the work, each containing 1,000 pages or more. As every disease will be exhaustively treated by a writer who has long given attention to it, the work will form by itself a complete library of literature upon medicine. We anticipate a large number of subscribers.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA at its Twenty-fifth Annual Session. Held at Philadelphia,, May 14, 15, 16, 1884. Volume XVI. Published by the Society. 8vo. Pp. 622. Philadelphia: Collins, Printer. Cincinnati: R. Clarke & Co.

The State Medical Society of Pennsylvania is one of the most vigorous societies of this country. The present volume of Transactions is very interesting, containing quite a number of very valuable papers by eminent physicians of the State. On account of the large amount of scientific matter contained in it, the book will be in demand by physicians of other States besides those of Pennsylvania.

Diseases of the Urinary and Male Sexual Organs. By William T. Belfield, M.D., Author of "Relations of Micro-Organisms to Disease" (Cartwright Lectures, 1883); Pathologist to the Cook County Hospital, etc. 8vo. Pp. 351. New York: William Wood & Co. Cincinnati: R. Clarke & Co.

This work forms the October number, 1884, of "Wood's Library of Standard Medical Authors." As we have spoken in high praise of other volumes of the series, so we can very justly speak in high praise of this one. Subscribers will regard this work as a most valuable addition to their libraries. The diseases treated are such as very frequently come under the care of every physician.

The author devotes quite a lengthy chapter to the "Anatomical and Physiological Consideration of the Kidney," and then minutely and clearly explains the "Methods of Examination." Albuminuria is treated, and other diseases of the kidney; so, also, are the various diseases of the bladder. The pathology of the urine is described, and also the clinical examination of the urine. In brief, the volume is a very complete exposition of the pathology and treatment of all the diseases of the male genito-urinary organs. Of course, in such a work is considered the disease of the prostate gland, seminal incontinence, etc.

The Principles and Practice of Gynecology. By Thomas Addis Emmet, M.D., LL.D., Surgeon to the Woman's Hospital of the State of New York, ex-President of the American Gynecological Society and New York Obstetrical Society, etc. Third edition, thoroughly revised, with 150 illustrations. 8vo. Pp. 876. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $6.00.

This work, first published in 1879, has now reached a third edition. The author's design is that the work shall be a clinical digest. It includes the results of his individual experience, and aims to represent the actual state of gynecological science and art.

The author has had an unusual amount of experience in the treatment of female diseases. To the enormous amount of clinical material coming under his care in the New York Woman's Hospital is to be added that of his private hospital. In making use of these very many cases he has been able to give to his work an individuality which very few authors have been able to do with their works; in some instances, because they have not had the same amount of experience, in other instances, because they have not so closely studied individual cases and noted the results. In arranging and formulating the laws which apply to diseases, and analyzing the results of treatment, he has compressed numerous histories and facts into a number of statistical tables, which present, in brief space, information that hundreds of pages would scarcely have sufficed to contain in detail. This parallel is probably not to be found elsewhere in the whole range of gynecological literature.

To his own experience the author has added that of others, so that the volume should very correctly mirror the principles and practice of gynecology as understood at the present time. Medical students and physicians will find no work that better elucidates the etiology, pathology and treatment of diseases of women. It is a thesaurus of valuable practical knowledge set forth in a clear, interesting style.

A MANUAL FOR THE PRACTICE OF SURGERY. By Thomas Bryant, F.R.C.S., Member of the Council and Court of Exchanges of the Royal College of Surgeons, Senior Surgeon to Guy's Hospital, etc. With 727 illustrations. Fourth edition, thoroughly revised. Large 8vo. Pp. 1,039. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $7.50.

This most magnificent work upon surgery has reached a fourth edition in this country, showing the high appreciation in which it is held by the American profession. It is no longer ago than 1879 since the first edition appeared. The present one comes fresh from the pen of the author, having been reprinted from the fourth English edition without alteration.

The English publication, we understand, is in two volumes, but the American publishers, by using a page almost quarto in size, and employing a smaller, but very distinct, type, have arranged for it to occupy but one volume, which makes it much more convenient for handling. That it is the very best work upon surgery for the use of medical students, we think there can be no doubt. The author seems to have understood just what a student needs, and has prepared the work accordingly. Also physicians who necessarily have a great deal of surgery to attend to will find it well adapted to their wants. But a surgeon occupying the eminent position held by Mr. Bryant is an authority, and, consequently, a work proceeding from him must hold a high place among works of reference.

In the introductory chapter the author very lucidly explains the method of investigating a case, and exhibits the points of inquiry in surgical cases. He then proceeds to the consideration of wounds, repair, inflammation, abscess, sinus and fistula, etc. Having prepared the work for students, he does not set out upon the discussion of subjects premising a knowledge of the mysteries of the principles and practice of surgery, but presuming the student to be a tyro, he leads him on, step by step, until he has become versed in them.

Figure first, of the illustrations, represent a group of placoid cells thrown out in the healing of a wound, while figure second is a beautiful diagram illustrating the process of repair in a wound filling up by granulations. The various cells, with their nuclei, some of them spindle shaped, are well shown. Such a diagram will aid the student very much in investigating with his microscope.

ELEMENTS OF SURGICAL DIAGNOSIS. By A. Pearce Gould, M.S., M.B. LOND., F.R.C.S. ENG., Assistant Surgeon to the Middlesex Hospital, London; Surgeon to the London Hospital. 16mo. Pp. 584. Philadelphia: Henry C. Lea's Son & Co. Cincinnati: R. Clarke & Co. Price, $1.50.

This work belongs to the series of medical publications of Messrs. Lea's Son & Co. known as "Manuals for Students of Medicine." The previous numbers of the series have been noticed by us. As we have stated, they have been prepared more especially for students, though valuable to physicians for speedy reference. Each one is of a size to admit of its being conveniently carried in the pocket.

Though the work before us is small in size, yet it contains a very large amount of matter. Each page is closely printed in small, distinct type, and the nearly 600 pages, therefore, contain nearly as much reading as many octavo works of bulky size. With all unnecessary verbiage eliminated, the student and practitioner will find the principles of surgical diagnosis very satisfactorily set forth. Every medical student attending lectures should have a copy of the work to study during the intervals of lectures; and, if practitioners would devote a portion of their leisure time to the study of it, they would receive immense benefit, in the way of refreshing their knowledge and bringing it up to the present status of progress.

A Manual of Bandaging: Adapted for Self-Instruction. By C. Henri Leonard, A.M., M.D., Professor in the Michigan College of Medicine. With 139 engravings. Second edition, revised and enlarged. 8vo. Pp. 159.

This little work should be in the hands of medical students and of every physician who has not had special training in surgical dressings and bandagings. Let a medical man be called in the case of an accident, and his medical skill will be judged of by the spectators by the facility with which he will apply a bandage or a dressing. Not to be able to apply a bandage *secundum artem* is conclusive evidence with people generally that the medical attendant is incompetent. But it is not merely for the purpose of making a display that a practitioner should be able to skillfully apply dressings, but that he may be of the greatest service when such are needed. Even a poultice is of no use unless it fully covers a part, and is so applied that it will be kept in position so long as it is needed. A wound is greatly hindered in healing, and an unsightly scar results, if its edges are not brought together with skill and retained in contact. An individual will be made a cripple for life if, suffering a fracture, an awkward and clumsy dressing is made to do duty. There are young doctors, and, probably, many old ones also, who would have been saved disgrace and a judgment for heavy damages if they had had such a work as this and fully mastered its contents.

We anticipate for the work a great demand. The catalogue price is only $1.50, but that we may favor our subscribers, we will agree to order it for any such for $1.25.

Besides the works we have noticed in this issue of the Medical News, we have a number on our table, received from the publishers, which we are under the necessity, in consequence of want of space, of letting lie over to another time for notice. Among them are "A Manual of the Medical Botany of North America." By Laurence Johnson, A.M., M.D. Published by Wm. Wood & Co. It is one of the series, 1884, of Wood's Library of Standard Medical Authors.

Also belonging to the same series of publications of Messrs. Wm. Wood & Co.: "The Therapeutics of the Respiratory Passages." By Prosser James, M.D.

"Doctrines of the Circulation:" A History of Physiological Opinion and Discovery, in regard to the Circulation of the Blood. By J. C. Dalton, M.D. Published by Henry C. Lea's Son & Co.

"The Diagnosis and Treatment of Chronic Nasal Catarrh." Three Clinical Lectures. By George Morewood Leffertz, A.M., M.D.

"The Basic Pathology and Specific Treatment of Diphtheria, Typhoid, Zymotic, Septic, Scorbutic and Putrescent Diseases Generally." By George J. Ziegler, M.D. Price, $2.00.

Editorial.

DELAY.—Various circumstances beyond our control have delayed the issuing of the present January number. Some of these have had reference to ourself, and some to our printing office—an accident happening to the press which delayed for a number of days the presswork. It is our intention, as soon as possible, to catch up and have the NEWS issued as nearly the middle of the month of its date as we can. By publishing at the middle of a month instead of the first, it will enable us to glean whatever may be new from the journals which are issued at the first of the month.

NEW VOLUME.—THE MEDICAL NEWS has now entered upon its *seventeenth volume* and seventeenth year. When it is considered how many medical journals have been commenced in that time and failed, it may be regarded as an old medical journal. Of course, it was begun "to fill a want;" and as its success has been such that it has been able to pay its way and to increase its size from thirty-two pages of reading matter, each month, to seventy-two, it would seem that the "want" was a real one and not imaginary. We have known of the projection of medical journals "to fill a want," which, after continuing three or four years, have entailed a loss of three or four thousand dollars upon their projectors.

We have not begun to write for the purpose of writing an essay upon medical journals, but we will take the opportunity to state that medical journals are too numerous in proportion to the number of educated reading physicians. There are hundreds of physicians in the United States who have never taken a journal. Some do not take one, in consequence of not feeling able to pay the small sum of two or three dollars a year for it. There are far more medical men than many suppose who scarcely realize enough from their profession to provide themselves and families with necessary food and clothing, and consequently are not able to spare even a trifle to keep themselves informed of the progress of medicine. As they are also not able to buy any new books, it is difficult to understand how they can continue to be competent practitioners. Medicine is a progressive science, and the law requires of a physician that he shall give his patients the benefit of all skill resulting from generally recognized and adopted improvements. This is the legal expression, as nearly as we can recollect, from hearing a judicial utterance. But how can a doctor bring to bear, in treating a case of disease, all the recognized recent improvements in medicine, if he neither takes a medical journal nor ever buys a new book? Books, however, are always behind the periodicals, from two to three years, in affording a knowledge of progress made. If a physician's income will not permit him to pay for a medical journal, not only himself, but his patients still more so, are to be greatly commiserated; for even if he was altogether competent to practice when he graduated, he can not continue to be so after the lapse of a few years. But while we feel pity for the doctor who has become unfitted to carry on his profession through poverty, we have a disgust for him who permits himself to fall behind in knowledge because he is too penurious to expend a dollar or so in subscribing for a medical journal. Such a person is a criminal, for he does not afford his patients every opportunity of recovering that would be in his power if he kept himself informed of the progress made in treating diseases—of the discovery of new remedies.

It is the custom usually in the first number of a new volume to announce that renewed exertions will be made to make the journal better than ever before, etc. We are not disposed, however, in this, the first number of our *seventeenth volume*, to do more than to promise that we will do all we can to make the MEDICAL NEWS a first-class journal. We do not claim to have attained to perfection in journalism, but we believe that the NEWS compares very favorably with any of the medical journals of the country, and is much cheaper in price than the most of them. Each subscriber, in a year, receives 864 pages of closely printed matter for the small sum of two dollars. Ordinary medical books, of the same number of pages, usually cost five or six dollars. But a bound medical journal with a good index is of more value than any single work in some department of medicine, for it is not devoted to one or two subjects, but is filled with valuable articles upon nearly every subject, and its information is the very latest—two or three years in advance of that to be found in the most recently published books. For instance, the action of cocaine—the alkaloid of coca—as an anæsthetic, has been described in the medical journals for some months, but it will be a year or more before its properties will be set forth in the text-books upon Materia Medica and Practice. A volume of the MEDICAL NEWS when completed and bound, and placed in the bookcase of the subscriber, makes a valuable work for reference for years. Containing very considerable professional history, it never becomes of no value like an old medical book.

We regret to confess that we have real cause of complaint against not a few of our subscribers. A good many—more than there should be—are very delinquent in their payments. This ought not to be; for physicians, more than any other class of men, being annoyed by the non-payment of money owing them, should wish to preserve an unblemished record for integrity in that respect. It is highly inconsistent to complain of conduct in others that we ourselves are constantly guilty of. Our printers can not live unless we pay them; but how can we pay them if we are not paid ourself. There is no profit made upon the MEDICAL NEWS at two dollars a year; and, consequently, when a subscriber does not pay us, we have to pay the printer for him from other resources than profits from subscriptions. May we not hope that those who are indebted to us will pay up very soon?

In conclusion, we will state that we hope all our subscribers may experience very much happiness and success during the new year upon which we have entered. There are many troubles and difficulties to be met in the world by every one. Trials and sorrows often are to be endured; much to be encountered to tax all our moral strength and energies. But he who stands up courageously in the performance of his duties, and does his best, will be a victor in the end, and will feel that the world has been the better by his having lived in it.

S. P. C. A.—These letters are the initials of a well-known humane society which, in a quiet, unassuming way, is doing a work of mercy scarcely second to that of any other humane organization, if to any at all. Thousands of persons have heard of the Society—know of its existence—but know little or nothing of its deeds of mercy. As at present constituted, it is not limited alone in its work to the protection of lower animals from acts of cruelty, but it is employed in rescuing helpless children from neglect and from bad treatment of wicked parents. In the eleven years of existence of the Cincinnati Society for the Prevention of Cruelty to Animals, although it has labored under embarrassments at times, which tended to restrict its efforts, as want of funds, etc., about 20,000 animals have been protected or rescued from abuse and neglect by its agents. As we have seen stated, "there is hardly any form of suffering which malicious or thoughtless human nature could devise and inflict upon dumb creatures, but what the Society has been called upon to prevent and punish. Animals and birds of almost every kind have found a safe shelter beneath its protecting arms. These animals have represented important property interests, and the Society in caring for them has contributed in a large degree to the economical welfare of the public." In the museum of the Society, preserved in alcohol, is the tongue of a horse, wrenched from its mouth by its *brutal* driver.

In 1876, the Society enlarged the scope of its work by looking after the interests of children. In a great city like Cincinnati, in which of a necessity poverty, vice and crime are greatly prevalent, there are thousands of children miserably neglected by parents, starving and clad in rags, sometimes almost beaten to death, never hearing other than vile, profane language. From the time the Society began to make the protection of children a part of its work, until last year, it has been called upon to protect or to rescue from abuse and neglect about 5,000 unfortunate boys and girls. Many of these cases, we are informed, were of the most heart-rending character, and the detailed experience and observations of the agents of the Society in connection with them, "would make a story so distressingly sorrowful as to be almost beyond all bounds of belief."

The Society, through its paid agents, who are constantly on duty, makes it its province to seek out and investigate all cases of cruelty and neglect of children. Not unfrequently has an agent entered a room of a family and found both father and mother in a helpless state of intoxication, an infant lying in some crib or box covered with a few filthy rags, and two or three other children, the oldest but a few years old, crying from hunger and not a mouthful of food in their miserable home. What would become of such terribly wronged little ones if they were not looked after and provided for through the humane efforts of such an institution? "What is everybody's business is nobody's business," is an expression frequently made use of, and our every day's experience proves the truth of it. If such little ones are to be rescued from their vile surroundings, fed and clothed and placed under proper influences, so that they may grow up into useful men and women, it must be made some one's *business* to give them attention. In this busy world in which every one feels that his own affairs are greater than he has time to attend to, no one will consider that he has time to attend to the waifs whom vice has deprived of the protection that is their due. If no ministering angel of the S. P. C. A. did not appear, under the circumstances, may be, a humane impulse might prompt some one to throw to the waifs a little food, and thus keep them from perishing until return of consciousness would enable their depraved parents to administer to their most pressing wants, and keep them alive during the years of their helpless state. But thus left to grow up in poverty and vicious surroundings, without moral training, beaten and maltreated, familiarized to the vilest language, taught to lie, and to obtain money by cunning, what sort of men and women would they become? Out of the depths of depravity can anything but depravity come? From a bitter fountain, it is said, bitter waters proceed; not sweet. In the haunts of vice little children can only receive a training that will fit them to become criminals. Therefore, when such are found suffering from neglect and abuse, unless rescued from their surroundings, besides having their immediate wants attended to, they will of necessity become vicious, like their parents, and, probably, as criminals, prey upon society. How fearfully are the criminal classes increasing, and may it not be greatly due to the indifference manifested in the welfare of the poor, little, suffering children of vicious parents?

It seems to us that every one can notice the influence which the S. P. C. A. has exerted in spreading among the people principles of humanity—educating them in the observance of kindness toward the helpless. We feel sure that a few years ago the duty that is owed to dumb creatures was not so nearly felt and understood as it is now. Certain it is that it has been but a few years, comparatively, since the organization of the Ohio State Society for the Prevention of Cruelty to Animals, of which the Cincinnati Society is the center, that anything like adequate laws for the protection of lower animals existed in Ohio, and the laws of a people generally represent their progress in enlightenment. In past years it was an every-day sight to see horses drawing too heavily laden wagons up the steep ascent of streets, the drivers using their whips at nearly every step to goad them to exertions, without exciting comment upon the inhumanity thus displayed, much less action in the way of preventing it, but such sights are not often seen now.

The medical profession is a humane one. The members of it have always labored for the amelioration of the ills of life—to relieve pain, to cure disease, to prevent sickness, and to bring about the conditions essential to have a "*sana mens in sans corpore.*" As good morals are as necessary for the general health as cleanliness, pure air, absence of infectious poisons, etc., we hope that every physician will use his influence to interest the community in the work of the S. P. C. A. organizations. These societies need means to carry on their good work; but while many men of wealth bequeath thousands of dollars to endow charitable organizations, only a few have left anything to any of the S. P. C. A. societies.

A NEW MEDICAL JOURNAL.—We learn from the daily papers that a new medical journal will be commenced soon in Cincinnati. The *Commercial Gazette* says that it is to fill "a want," and will not be a "weakly weekly." We hope it will be a strong weekly, possessing positive qualities. But what *want* has been existing in medical journalism, that it will supply, we can not imagine. It can not have been very glaring, or we feel sure that we would have noticed it. It seems, however, that whenever a new journal is launched forth, it is announced *"to fill a want."*

We regret to say, but it is nevertheless true, that in the majority of instances, in the case of medical journals, new journals that are established for the purpose of *"filling a want"* fail, for the reason that large numbers of those who at first subscribe for them seem, after awhile, to conclude that they are not under obligations to pay for them—that the *want* should be filled without cost. This would do very well, if the printer did not insist on prompt payment, but as he will very ungenerously insist upon doing that, the poor doctor, who has started out to fill the want, seeing his funds grow less and less, is under the necessity, to keep himself from becoming impoverished, of abandoning his praiseworthy enterprise and letting the *want* continue to exist. He may have been willing to contribute time and labor without reward, but his means will not permit him to pay printers' bills and cost of paper and postage, to supply large numbers of his professional brethren with all the latest professional news and most recent advances in medical science without charge. He is to be greatly congratulated if, in his experiment in filling the want, he has not "sunk" more than four or five thousand dollars.

But we do not wish to discourage the projectors of the new enterprise in medical journalism. The new journal, we understand, is to be called the "*Argus;*" and we have no doubt that those who send it forth will be sufficiently argus-eyed to secure its financial welfare. We wish it success, both in the way of securing abundant paying patronage and in the way of usefulness.

THE NEW LOCAL ANESTHETIC.—We are indebted for the discovery of this to Dr. Köller, a young German ophthalmotologist at Heidelberg. Humboldt tells us in his works how the inhabitants of Peru make themselves beasts of burden in carrying merchandise up the mountains to the city of Quito, some 10,000 feet above the level of the sea, requiring only a pocketful of coca leaves for their subsistence, its tonic influence, and, we suppose, also its nutritive powers, being of such a high order. The technical, or botanical, name of the plant is, we believe, erythroxylon coca. There is obtained from the leaves an alkaloid termed cocaine. One kilogramme of coca leaves gives about two grammes of cocaine. The alkaloid is bitter, and produces a very decided numbness of the tongue. It is yellowish white, and appears in the shape of soft, silky prisms. It is almost insoluble in water, quite soluble in alcoholized water, and very soluble in alcohol and ether. It has a very alkaline odor, completely neutralizes acids, and forms with them salts difficult to crystallize. Dr. Köller found that a few drops of the muriate of coca, or cocaine, dropped into the eye a few minutes before an operation, rendered the eye perfectly insensible, so that the surgeon could perform the most critical and severe operations upon it without producing any sensation whatever; and, if the operation was prolonged, it was only necessary to apply a few more drops of this agent, and the insensibility would be continued until the operation could be completed, afterward passing away in the course of fifteen or twenty minutes. If anesthesia can thus be produced in the tissues of the eye by means of muriate or hydrochlorate of coca, certainly we should expect that it would be serviceable in operations in the mouth, as extracting teeth, etc. If so, dentists will find it a great boon, doing away with the use of gas, which is more or less dangerous.

It has not yet been fully investigated to what extent this alkaloid salt may be employed by the surgeon in operations. By hypodermic injections, we have understood that its anesthetic effects may be conveyed to the deeper tissues, so that large tumors may be removed without causing pain.

Our readers may rely upon it that we will present in our journal from time to time all reliable information in regard to it. It can be readily obtained in solutions of different strengths from prominent druggists everywhere. For operations upon the eye, some employ a 2 per cent. solution, while others advise a 4 per cent. solution as more reliable in the way of producing anesthesia, while no danger need be apprehended in consequence of solution being too strong.

AN OLD PUBLISHING HOUSE.—We have received a handsome little octavo volume, of twenty pages, printed upon very heavy paper, which is entitled, "One Hundred Years of Publishing, 1785—1885." It gives the history of the very distinguished publishing house now designated Lea Brothers & Co., but, previous to this month, known as Henry C. Lea's Son & Co. Previous to 1880 the name had been for some time simply Henry C. Lea. During years before the firm name had been Lea & Blanchard, and Blanchard & Lea, according as it happened that, in the course of circumstances, one or the other of the gentlemen bearing these names was senior-partner. We presume that there is not a regular physician in the United States who is not familiarly acquainted with the house as a great medical publishing house; for the firm, as publishers of medical works exclusively, is the oldest and largest in this country, and by it is issued a very large number of the most familiar standard text-books, in medicine and surgery, that are to be found upon the shelves of the library of every physician, even though the number of his books be very meager.

As physicians can not help but feel very near to such a house, and hold it in high esteem, we will, undoubtedly, be excused for taking the space in copying the following paragraph—the first one in it—from the little book sent us:

"When a business house, handed down from father to son, has withstood the vicissitudes of a century, it can look back with pardonable pride upon its past career, and can anticipate, with reasonable hope, a continuance of the prosperity hitherto secured by the labors of its members. A house which dates back nearly to the close of the War of Independence, which has since then survived all the alternations of peace and war, the rise and fall of successive financial systems and the frequently-recurring convulsions of trade, while invariably maintaining its commercial honor, and never failing to meet its obligations to the day, has proved itself to possess the qualifications which win and deserve success; and its present members may be pardoned if they desire to put on record a brief memorial of what their predecessors have accomplished."

This now great and well-known medical publishing house was founded by Mathew Carey, who came to this country from Ireland in 1784. When he landed in Philadelphia, being without money, General LaFayette, whose acquaintance he had previously made in Paris, and who was visiting Washington at Mt. Vernon, sent him a cheque for $400. With this he began a paper, and afterward commenced publishing books, his most important venture being the issuing of the Bible in quarto size—both the Douay translation and the Authorized Version. For a long time they were the only quarto Bibles published in this country. As stereotyping was not then known, Mr. Carey kept the whole volume standing in type, which, of course, was a very expensive proceeding. Among the most popular works he issued were, Wemyss' biographies of Washington and Marion, Jefferson's "Notes on Virginia," "American Atlas," and several other works. He also reprinted the "Waverly Novels" from "early sheets." There was great difficulty then as regards "early sheets;" for the uncertainties of navigation made it not improbable that a competitor might receive from Europe an ordinary copy of the book before the "early sheets" would come to hand, though two or three copies would be sent out by different packets.

In 1817 Mr. Carey associated with him his eldest son, Henry C. Carey, and four years later his son-in-law, Isaac Lea. In 1824 he definitely retired from the business, devoting his remaining years to public interests, benevolent enterprises, and to an extended system of organized private charity. In 1839 his death occurred, caused by the overturning of his carriage, in his eightieth year. Allibone, in his "Dictionary of English Literature," says: "The citizens of the United States will ever owe to Mr. Carey's memory a debt of gratitude for his invaluable labors as a citizen, a politician and a philanthropist."

The firm of Carey & Lea, formed in 1824, prospered. Mr. Henry C. Carey acquired a world-wide reputation as a political economist—his voluminous works having been translated into almost all civilized languages. He died only a few years since. Mr. Isaac Lea has enjoyed an equally wide repute as a scientist. His many scientific papers acquired for him membership of innumerable learned societies in both hemispheres. As a nonagenarian he enjoys the respect and affection of all.

In 1833 Wm. A. Blanchard was added to the firm, which became Carey, Lea & Blanchard. In 1836 Mr. Carey retired from the firm, which was thenceforth known as Lea & Blanchard until 1851.

For many years the house published the "*American Quarterly*," which it founded, and which was a successful rival of the old "*North American.*" It continued the publication of the Waverly Novels, and also all the novels of Fenimore Cooper, and the works of Washington Irving. At one time its regular allowance was two novels per week, in addition to such works as "Encyclopedia Americana," "Encyclopedia of Geography," "Wilkes' U. S. Exploring Expedition," Strickland's "Queens of England," the Latin classical series of Schmitz and Zumpt, and many other works. The house also reprinted the works of Dickens, as fast as they appeared, from "early sheets."

The partnership of Blanchard & Lea continued until 1865, when Mr. Blanchard retired, to be succeeded by his son, when the firm again became Lea & Blanchard. The younger Mr. B., however, soon retired, and the business was carried on alone by Mr. Lea until 1880, Mr. L. at that time giving way to his son, Mr. Henry C. Lea, the fourth in descent from Mathew Carey, the house became Henry C. Lea's Son & Co., and so continued until the first of the present year, when it assumed the designation, in consequence of changes in the firm, of Lea Brothers & Co.

In 1820 the house founded the "*Philadelphia Journal of the Medical and Physical Sciences*," edited by Dr. Nathaniel Chapman, with whom became associated Drs. Dewees, Godman and Hays. In 1827 this journal became the present journal, so widely known as "*The American Journal of the Medical Sciences*." With one exception, this journal is the oldest medical periodical in the English language.

The publication of the journal led naturally to more intimate relations with the leading minds of the medical profession, and medical works began to form an increasing portion of the issues of the house. Among the early medical writers whose works the house published, are Wistar, Chapman, Coxe, Horner, Gibson, Dewees, Dunglison, Meigs, Hodge, etc. Besides these, the republication of English medical works, and translations of more conspicuous ones from the continental languages, are too numerous to mention. In this way the house gradually abandoned the publication of all but medical works, upon which it concentrated all its attention, obtaining a leading position in this line of business, which it has easily held. We feel sure that there are but very few publishing houses which are so widely known as this house. Its books are to be found in every "nook and corner" of this great country and Canada, besides being in the libraries of all the leading medical men of Europe. It has a right to feel a pride in its *imprint*, and to believe that its name on a title-page is, to some extent, at least, a guarantee of the worthiness of the volume in which it appears. It is fully a guarantee of the high character of the author.

We feel justified in occupying so much space in noticing the history of a house, extending through a century, which has been so intimately associated with the history of the medical profession of this country. Its publications begin with the beginning of American medical literature, and a very large proportion of it has issued from its presses. Not only a majority of the physicians of to-day learned the principles of their profession from the text-books published by this house, but also their fathers before them, and their grandfathers and great grandfathers. Probably there never has been another such an instance where the history of a great profession of a country has been so intimately related, or involved, in the history of a great publishing house.

MEDICAL CHARITIES.—There is a very sensible editorial in the *New York Medical Journal* on this subject, referring to an address by Mr. S. Gamgee, of Birmingham, England, who has had an extensive experience with dispensaries. We have no personal knowledge of the dispensaries of other cities, but we know that those of Cincinnati, which are connected with the Colleges, having been organized by them, are very poorly managed. They do not subserve the purposes of charity; they are injurious to the interests of young physicians, who are struggling to make a living, and they are but little use to students who are in attendance upon medical lectures, for whose benefit they were ostensibly established. Very few of the worthy poor ever apply to them for relief, for such shrink from going before students and others to be examined in regard to their ailments. They prefer to be attended by a ward physician, with whom there is privacy, and who will probably give their ailments more attention than they can possibly receive at a dispensary where great numbers are prescribed for in a very limited time. The frequenters of them are largely those who, having no personal pride, and destitute of delicacy, seek medical aid where they will have nothing to pay for it. They are quite able, with but few exceptions, to pay a physician at least a small fee for a prescription, but they prefer to expend the money for other purposes; and the ward physician being acquainted with them, they know will refuse to render them gratuitous services. Their cases are of but little benefit to medical students, for they have but very limited opportunities of studying and observing them.

The address of Mr. Gamgee on Medical Charities has been received in this country. We understand that it deals with affairs of more than local interest, and the deductions drawn may be applied to some extent to our own medical charities. The point most urged is that out-patient relief has to a great degree ceased to be a true "charity," and is now dispensed in an indiscriminate and irrational way, "with the net result of doing the minimum of physical good and too often the maximum of moral harm"—quoting from the *British Medical Journal* Mr. Gamgee also aptly calls attention to the fact that, with the crowds that, under the present system, throng his clinic, the physician is "practically paralyzed for his best work." No one who has been engaged extensively in dispensary practice will deny that it stands in the way of careful diagnosis and treatment, however conscientious the medical attendant may be. The writer suggests as a remedy for the present abuses, that the working classes, who contribute so largely to the support of hospitals, should be allowed to have an actual share in their management. Under this system, he thinks, not only will worthy applicants be recommended for relief, but the idle and shiftless will be prevented from "reaping where they have not sown." The key-note of Mr. Gamgee's address is, let the working classes be taught to feel that they are not mere objects of charity, but that they have a right to the aid of institutions which they themselves sustain.

COMA-BACCILI AND CHOLERA.—The claim of Dr. Koch that the coma-bacillus is the *materies morbi* of cholera, says the *Medical Times*, is not acknowledged by eminent pathologists, or, at least, many of them. It will be remembered that Koch so reported to the German Government. It is stated that Drs. Klein and Heneage Gibbes, in their preliminary report of the result of their investigation carried on in Bombay and Calcutta, declare without any circumlocution, that "the statement of Koch that 'coma-bacilli' are present only in the intestines of persons suffering from or dead of cholera, is not in accordance with the facts, since 'coma-baccilli' occur also in other diseases of the intestines,—*e. g.*, epidemic diarrhea, dysentery, and intestinal catarrah associated with phthisis." Other statements meet with a similar flat denial, and all attempts at inoculating animals with cholera-fluids or bacillus-cultures completely failed. The bacilli in question were cultivated, and it was found by Dr.

Klein that they did not behave differently from ordinary putrefactive organisms.

In replying to similar criticisms upon the comma-bacillus recently, Dr. Koch remarked that he remembered that "they made some such remarks about the bacillus tuberculosis two years ago." This is a coincidence which is not without significance.

AMERICAN PUBLIC HEALTH ASSOCIATION—OFFICIAL ANNOUNCEMENT OF THE LOMB PRIZE ESSAYS.—Mr. Henry Lomb, of Rochester, N. Y., has offered through the American Public Health Association the sum of $2,800, to be awarded as first and second prizes for papers on the following subjects: 1. "Healthy Homes and Foods for the Working Classes"—first prize, $500; second prize, $200. 2. "The Sanitary Conditions and Necessities of School-Houses and School-Life"—first prize, $500; second prize, $200. 3. "Disinfection and Individual Prophylaxis Against Infectious Diseases"—first prize, $500; second prize, $200. 4. "The Preventable Causes of Disease, Injury, and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding Them"—first prize, $500; second prize, $200. All essays written for the above prizes must be in the hands of the Secretary, Dr. Irving A. Watson, Concord, N. H., on or before October 15, 1885. The judges will announce the awards in the second week of December, 1885, at the annual meeting of the American Public Health Association. Competition is open to authors of any nationality, but all the papers must be in the English language. The American Public Health Association earnestly appeals to those able to compete, to take part in this work, which it is believed will do much to augment the health, comfort, and happiness of the people.

A LENGTHY PRESCRIPTION.—We have heard of prescriptions being made containing a large number of ingredients, so that it might be made certain that the person, for whose benefit it was made, might be sure of getting something required to cure his disease. It is on some such principle, we believe, that the Chinese prepare their potions for the sick. In the case of these people, however, the sick person or his friends have the privilege of looking over the written prescription, before it is compounded, and objecting to any of the ingredients. If one or more ingredients are rejected, the cost of the prescription is lessened, for the doctor charges for each medicine that he succeeds in getting into his formula.

The prescription below has been sent us by Dr. B. F. Price, of Braddock, Pa., which he says was filled at a drug store in East Liberty, Pa., from a prescription written by a doctor from the South. Dr. Price does not know from what State the Southern doctor hailed, but he thinks he must have come from ‘‘Arkansaw,’’ where he had access to the Arkansaw doctor’s ‘‘jug of returns.’’

℞ Potass. Bromide,
‘‘ Chlorat.,
‘‘ Iodide,
“ Acet.,
‘‘ Bicarb.,
Ammon. Chlorid.,
‘‘ Bromide,
Ext. Colombo,
‘‘ Gentian,
‘‘ Taraxac,
Ferri. Pyro-phos. All ʒij.
Syr. Ferri. Iodide,
Syr. Sal Ammon.,
Dil. Phos. Acid. *aa* ℥i.
Pepsine, grs. xxx.
Tr. Canabis Indica,
‘‘ Digitalis, *aa* ℥ss.
Syr. Calcis Lactophos,
Glycerine,
Syr. Tolu,
Tr. Cinchona Co. *aa* ℥ij.
Liq. Arsenicalis,
Tr. Arnica. *aā* ʒss.
Ext. Nux. Vom, grs. x.
‘‘ Conium,
‘‘ Belladona,
‘‘ Hyoscyamus. *aa* grs. vi.
Chloroform, qtts. x.
Quinine, ʒi.
Alcohol, ad. ft. ℥xvi.

M. Sig.—Shake, and take two teaspoonfuls after each meal three times a day in a glass of milk.

Medical Practice in the Argentine Republic.—Correspondents of the *South American Journal* give some glowing accounts of the prospects for medical practice in the Argentine Republic: "All the medical men here are said to be making fortunes, and there is still room for 'healthy competition.' The ordinary charge for a consultation at a medical man's house is said to be two dollars (8s.); for a visit, four dollars, say 16s.; for attendance at confinement when all goes well, about twenty pounds; but when any special care or operation is required, these fees mount up to hundreds of pounds. Accounts for medical attendance are sent in, and paid without remark, which would make the hair of a paterfamilias in the 'old country' stand on end. My friend mentions the following fees as having been lately obtained by doctors who, though of good standing, are not looked upon as 'stars:' For extraction of ovarian tumor, £1,200; amputation of arm, principal, £600; amputation of arm, two assistants, each, £400; delivery with operation, £400; attendance during typhoid fever, £200; visit by a physician for dropsy, £50; consultation fees, £20 and upward." Expenses are high, however, and before one can practice medicine he must pass an examination before the Government Medical Board, and must be able to speak Spanish.

Diplopia Cured.—Says the *Medical Chronicle*, of Manchester, Eng.: Landsberg found himself suffering one morning last summer from diplopia, and he then discovered that the external rectus of the right eye was completely paralyzed. Thinking that the paralysis was caused by exposure to cold, he took iodide of potassium for a few days, but without benefit. Prof. Salkowski then examined his urine, and found that it contained 2.5 per cent. sugar. Under a course of Carlsbad water and anti-diabetic regimen, the sugar disappeared permanently from the urine, and the patient rapidly recovered from the paralysis.

Advertisement of Books.—Our readers will notice that a number of advertising pages are occupied with the titles of books, which will be furnished to parties who send their orders to this office. We have arranged with reliable bookmen to promptly fill all orders coming to us, and purchasers may feel assured that their wishes will be carefully fulfilled. We have been induced to make this arrangement for the reason that we are constantly receiving inquiries in regard to books, their prices, etc., and these inquiries are not by any means confined to medical works.

As we are very frequently solicited to receive orders for microscopes, we have arranged with the "Gundlach Optical Company," of Rochester, N. Y., at the head of which is Mr. E. Gundlach, of world-wide reputation as maker of microscopic objectives, to furnish at our order a microscope especially adapted for the use of physicians, at a price much below what any similar instrument can be purchased for elsewhere. If this does not prove to be the case, the money will be returned. In the advertising form there will be found an engraving of the instrument. While it is a model of neatness, it is compact, solid, and exceedingly delicate in all of its movements. There accompanies it a handsome black walnut case, with drawer and places for eye-pieces and objectives. Although the price is but $45.00, we are sure every one acquainted with microscopes would consider it cheap at $50.00.

CONGRESS AND CHOLERA.—As we predicted, the House Committee on the Public Health has decided that, by reason of the late stage of the season and the crowded condition of the calendars, it would be impossible to pass during this session such a bill to protect the public health as was recently prepared by the delegates from the various State Boards of Health assembled in convention at Washington. The Committee, however, decided to recommend the appropriation of $25,000 for the National Board of Health, and $500,000 to be used at the discretion of the President, in preventing the spread of cholera, should it appear in this country before the next Congress assembles.

IRON FOR THE BLOOD.—*Mike* (something of an invalid)—The docther says Oi must dhrink oirun for me blood.

Mary—Shure, an' how can yez dhrink oirun, Moike?

Mike—By meltin' it, av coorse.

Mary—But yez can't dhrink hot melted oirun, ye fule.

Mike—Oi knaw Oi can't dhrink hot melted oirun, but it's meself that can wait till it cools.

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Original Contributions.

The Surgical Treatment of Paronychia and Palmar Abscess. Minor Anesthesia.

Abstract of a Clinical Lecture at the Columbus Medical College, by J. W. HAMILTON, M. D., Professor of Surgery.

DURING the last few weeks, gentlemen, you have seen under treatment in our clinic, five cases of inflammation of the palmar aspect of the hand; two of these were confined to the fingers; three, in the outcome, involved the greater part of the hand.

To a few points, suggested by these cases, I wish to call special attention.

In the first place, I wish to impress deeply upon your minds that these cases are liable, especially if inefficiently treated, to be attended with terrific suffering. An amputation of an arm or a leg is a terrific thing to endure. But I venture to say that, with average treatment, the suffering attendant upon many such cases is often several times greater than should follow an ordinary amputation.

In the next place, I wish to explain to you that this suffering is to a very great degree controllable. Whilst this is true, it is at the same time true, that, in the hands of general practitioners, the simple surgical procedures that are capable of saving so much suffering, are but rarely so used, as, in any considerable degree, to accomplish that object.

Accurate, and free incisions, made as soon as the character of the case is developed, are imperatively demanded—but usually made with such timidity and inefficiency as to render them valueless.

The case I now present is a striking exemplification of this timid practice.

Nearly three weeks ago, the young man I bring before you, noticed a swollen and tender condition, corresponding to the palmar aspect of the first phalanx of the index finger. His physician made a slight puncture on the fourth day, without reaching matter. On the seventh day another little puncture was made, resulting in a bare show of matter. In the meantime swelling and tension increased and rapidly extended, so that now all the fingers and the entire hand are greatly swollen, and terribly painful. In the meantime, for nearly two weeks, several kinds of poultices have been used, and squeezing has been resorted to, in the vain attempt to force a large amount of semi-solid sloughs and pus through an inadequate puncture.

Now, gentlemen, whilst I am glad to say that the practice in this case has been in the right direction, I am compelled to say that it has been inefficient. The openings made did not accomplish their object; and yet the practice comes pretty well up to the general average. Large numbers of these cases come into my hands, after being treated for a time by others.

What you see here exemplifies fairly what I am accustomed to see.

Physicians who have become rusty in anatomy *are afraid to cut freely*. They are haunted with the apprehension that they will get up trouble by wounding blood-vessels, and hence this trifling treatment that does more harm than good.

The case before you has reached a point at which we must make free openings. One is called for at the site of the original punctures; another about the center of the palm. Now, dare we cut freely and deeply in these situations? As an answer to this question let me give you a simple lesson on the surgical anatomy of the hand. In this I will be greatly aided by the elegant *papier maché* preparation which I here show you. Note particularly that the fingers and the thumb are fully extended, so that the axis of the thumb is at a right angle to that of the several fingers. Now I lay this pencil across the hand, just in front of this axis and parallel with it. You see just above it this arch of blood-vessels, the superficial palmar arch, the continuation of the ulnar artery, quite superficially situated, and too large to be wounded with impunity.

In this other preparation which I now show, you see crossing the palm, the deep palmar arch. It is formed by the radial artery. The principal thing to be borne in mind in reference to it is, that it is about a finger's breadth nearer to the wrist-joint than the superficial arch.

Notice, too, the digital arteries. You see they rise from the superficial arch in the spaces between the metacarpal bones and pass downward on the sides of these bones, thence on the sides of the fingers to their tips.

Now, I present a third preparation. You see it is a prepared natural hand. Notice, if you please, that the thecæ or sheaths of the tendons are peculiarly thick and strong over the middle part of each phalanx, and that the course of the nerves is essentially that of the arteries.

Now, gentlemen, if you have these few anatomical facts so firmly fixed in your minds that you can never forget them, I am prepared to give you two simple rules under which you may use the knife ever so freely, and with perfect confidence, that neither the vessels nor nerves of the fingers or palm, will be wounded.

1. *Make all your incisions, whether palmar or dorsal, in the middle line of a finger, or metacarpal bone.*

2. Abduct the thumb to a right angle with the extended fingers. Never extend a deep incision as high by a finger's breadth as a line made by projecting its axis in this position straight across the hand.

But I must not forget that my patient is waiting for relief from great suffering. He needs free incisions. If I make them without anesthesia, I will inflict great pain. If I anesthetize him in the ordinary way, with ether, I will, in some measure, put his life in peril, disturb his stomach, and in various ways make him uncomfortable. These effects, in greater or less degree, are inseparable from what I wish you to understand and designate as Major Anesthesia. There is a certain, rather circumscribed, and sadly neglected, but beautiful field of practice, which I wish you to remember and designate as Minor Anesthesia, which, to my mind, is admirably adapted to this case.

You may gather a pretty good idea of its scope and value from the following personal narrative :

For months an upper right molar was loose and exceedingly sensitive. I undertook to get rid of it as follows: I made a loop in the middle of a strong whip-cord, and had a member of my family pass it around the tooth, pressing it well up to the alveolus. Having it well secured, I wrapped the free ends around my left hand, held close to the angle of the mouth. I then inhaled ether, taking about a half dozen, rather slight inhalations, followed by about as many deep ones, with the napkin well saturated. By this time my brain was in a whirl, and though consciousness remained, sensation was gone. I now dropped the napkin, which I held in my right hand, closed both upon the string, and by a powerful pull, removed the tooth, without the slightest pain. In a half minute the effect was gone, except a delightful exhilaration, which lasted for some hours. In this case, sensibility to pain was abolished; consciousness, and a degree of intelligence, volition, and muscular power remaining. All this from a few inspirations, producing exhilaration without a sign of coma.

That ether can produce this condition I have often demonstrated.

Now, let us avail ourselves of the delightful property of this drug, in the interest of this patient.

I take this folded napkin, and pour on it perhaps a drachm of Squibb's ether. I ask the patient to keep his mouth about half open, and to breathe naturally about six times. At this stage renew the ether, using it freely, and ask him to take from five to eight or ten forcible inspirations, and hold out a hand whilst he is doing so. He has now made eight inspirations, and you see his hand is inclined to drop. I now quickly insert my knife deeply and make an incision on the palmar aspect of the first phalanx of the index-finger, and also another on the same aspect of the middle of the metacarpal bone of the ring-finger, each more than a half inch long. See, too, how, without squeezing, the thick pus and sloughs escape. Tension is gone. Relief has come. Consciousness is fully restored. No shock is present; there remains only the pleasant exhilaration of Minor Anesthesia. Finally I drop into one of the wounds a fourth grain of sul. morphia, and dismiss the patient with a dressing of absorbent cotton.

Chorea.

A Clinical Lecture by

PHILIP ZENNER, A. M., M. D., CINCINNATI, OHIO,
Lecturer on Diseases of the Nervous System, Medical College of Ohio.

GENTLEMEN:—The cases presented to you to-day belong to the most common diseases of the nervous system; they are cases of chorea. You observe in all of them indefinite movements of various parts of the body, irregular muscular contractions. You observe occasional contraction of the facial muscles, with grimaces of various kinds, twitchings of the muscles of the hands and arms, and some movement in the lower extremities. These irregular movements are more marked now than usual, for all of these young patients are a little excited on account of being presented to you, and emotional disturbance always increases the nervous manifestations. The irregular clonic contractions are also increased by voluntary movements. When I tell this young lad to button his coat, the irregularity of his actions, previously only slight, becomes very perceptible. You have thus seen what are in reality the distinctive features of this disease. Firstly, irregular, involuntary contractions of the muscles, which occur principally in the parts already mentioned, but which may occur in any of the muscles of the body. Secondly, a disturbance of voluntary movements. The latter are excessive in number and extent; they appear to overreach their intended object, but they are lacking in vigor and precision.

The symptoms of one of the patients presented to you, a young girl of fourteen, do not seem to accord with the description just given. In this girl the spasmodic movements are chiefly in the muscles of the right side of the shoulder and neck, and in the right orbicularis palpebrarum. The movements appear to be rhythmical, and do not appear to be at all affected by voluntary acts. This belongs to a class of cases which has been termed chorea electrica. It probably has nothing in common with ordinary chorea.

In another of these cases there is a distinct heart murmur, dependent upon valvular disease. This complication is a very common one, and has given origin to a theory, very widely accepted, of the cause of the disease. Rheumatism, valvular disease of the heart and chorea have been very frequently found together. Also in *post-mortems*, perhaps the larger number of *post-mortems* of cases of chorea which have terminated fatally, disease of the valves of the heart has been found. Now, the theory, based upon these observations, is this: In these cases there was first disease of the heart (perhaps due to rheumatism), the surfaces of the valves being roughened, small deposits of fibrin were left upon them; this fibrin was afterward carried away in the blood-vessels, and, as emboli, occluded some of the vessels in the brain, particularly those in the corpora striata, and thus gave origin to the motor symptoms of chorea.

This is the theory which has been offered by some, and which is a very plausible one. But it has not been universally accepted. There are many objections to it. The mere fact that chorea has such a typical course, that it so generally ends in recovery, is not favorable to this theory. But we know that lesions of the brain sometimes produce symptoms similar to those of chorea, such as the post-hemiplegia, hemi-chorea and ethetosis. These conditions are most frequently produced by lesions in the optic thalami, or, which is more probable, in the posterior part of the internal capsule.

Whether this theory of the origin of chorea be correct or not, some relation must exist between chorea, rheumatism, and valvular disease. Possibly it is that the same poison is the cause of all.

In addition to motor manifestations, there are also mental disturbances in this disease. It usually begins with changes in the child's disposition and character. It becomes irritable, peevish, or ill-natured. It is rendered restless and uneasy at the least disturbance. It is easily aroused to anger. This young lad, whom I present to you, with a smiling countenance, may be put down as an exception to this rule. He appears to be as cheerful and happy as before these irregular spasmodic movements appeared.

If we should examine these patients carefully, we would probably find that in all or nearly all of them, the reflexes, both the deep and superficial, or the tendon and cutaneous reflexes were diminished. This is probably due to an inhibiting influence, which the irritative condition of the brain exerts upon the centers for the reflexes.

Chorea is essentially a disease of childhood. It most commonly occurs from eight to twelve years of age, and more frequently in girls than boys. It is most frequently attributed to fright, and, although we can not know just how much this may have to do with its production, it can scarcely be doubted that it often plays an important part. It also occurs chiefly in those belonging to so-called nervous families, that is where nervous diseases are prevalent. It appears sometimes to occur in an almost epidemic type.

Thus it may attack a large number of children in the same institution. In such cases, doubtless many factors are brought into play, hysterical elements, tendency to mimicry, influence of the emotions. In women sometimes pregnancy exerts a special influence in its production.

The duration and outcome of the disease are variable. There are rare cases in which the disease is so violent that it leads directly to a fatal termination. But usually the disease is benignant and ends in recovery within a limited period. Its average duration is about two months. If it lasts much longer, three months or more, then we can speak with less certainty of its duration, for it may last a year or more. In the cases complicating pregnancy, the disease does not usually terminate until after confinement.

The most discouraging feature in connection with the disease is the tendency to relapses. Sometimes quite a number of relapses occur and are held in check with great difficulty.

Very many different remedies have been given in the treatment of this disease. But the fact that it generally runs a limited course of six or eight weeks' duration, teaches us that medicine is often unnecessary. The child requires a healthy regime, good food, fresh air, plenty of sleep, avoidance of excitement and overstrain of ever kind. These, with perhaps sponging of the body, or light tonics when indicated, are quite sufficient in the great majority of cases.

Of the various remedies administered, arsenic appears to have the greatest value. The overwhelming testimony in its favor seems to prove that it has, at least in some cases, a directly curative value. Application of ice to the spine also has appeared to be serviceable in some cases. Electricity, in its varied forms, is also often employed, and, probably, with benefit.

The patients presented to you, are all taking arsenic, in the form of Fowler's solution. In those, in whom the disease has existed for some time, electricity is also applied. The positive pole, or anode, is applied in the neighborhood of the superior cervical ganglion, just below the ear;

and are compelled to admit that between ovulation, the cause, and menstruation, the consequence, there is room for a third factor. This third factor the author considers, is a non-fecundated ovum.

This is how the author understands the whole of the menstrual process.

1st. The Graafian follicle ruptures, the ovule, arrived at maturity, escapes thereform, and by means of the Fallopian tube reaches the uterus.

2d. Encountering the first folds of the uterine mucous membrane, and this is ordinarily near the tubal orifice, the non-fecundated ovum fixes itself there, and the direct consequence of its presence is the tumefaction of the mucous membrane and the formation of the menstrual decidua.

3. If the ovule, having reached this point, be fecundated by the spermatozoa, instead of a menstrual decidua, a decidua vera of pregnancy is formed.

4th. If, however, the ovule remains unfecundated during a certain time, which constitutes the duration of its vital activity, it dies and determines an active sanguine congestion, the retrogression of the menstrual decidua, and, in consequence, a hemorrhage.

5th. In its turn, this sanguine congestion thus produced, reacts on the mediate source of its origin—the ovary—and assists in bringing about the rupture of a new follicle, which has meanwhile reached its maturity in the ovary.

(It is self-understood that this does not exclude that any other cause, capable of bringing about a menstrual congestion, may produce the same effect, and to determine the rupture of another follicle arrived at maturity.)

This theory, according to the author, answers all the preceding objections, and throws light upon many points that have remained obscure or uncertain to the present time. As to the objections that may be raised against his theory, he ranges them under the two following heads:

1st. The possibility of a non-fecundated ovum of fixing itself upon the uterus.

2d. The persistance after this nidation of the ovule, and only after this nidation, of a vitality of the ovule, a vitality which oscillates according to the individuals in the feeble limits of time.

To reply to the first, the author combats the theory of Coste, the fecundation of the ovule in the ovary, or in the upper fourth of the Fallopian tube only, and with Pouchet regards the uterus as the seat, the point where fecundation occurs. He thus rejects the existence of the albuminous layer which surrounds the ovule, when it has once passed the upper fourth of the tube (Gerbe, Coste), or rather admits that it is destroyed before the ovule reaches the uterus; its existence being only temporary. He admits the possibility of the spermatozoa being conserved in a state of vitality for a certain time in the genital organs; explains the rarity of extra-uterine pregnancies by the rarity of fecundations of the ovule in the ovary or in the tube, and summarizing our actual knowledge of fecundation, arrives at the following conclusions:

Facts prove that coitus may be fecundating at no matter what day between two menstrual periods. This being so, it must necessarily be that the two factors (ovule and spermatozoa) of fecundation must reach each other. But, as in the human species, they are set at liberty at different epochs, and as the coitus may be fecundating as well the first day as the last of the intermenstrual interval, as they are both active, this setting at liberty at different epochs entails the consequence: One must necessarily wait for the other. But, as the spermatozoa, as has been shown by analogies and material proofs, can not be the factor that waits, it necessarily follows that it must be the ovule that awaits its collaborator, and the laws of anatomy and physiology compel us to conclude that this ovule, conserving its vitality, fixes itself in the non-fecundated state in the place (normal or abnormal) which shall later be the seat of development of the fœtus.

The second part of the memoir is devoted to defending the author's theory, and to the clinical lessons that may be drawn therefrom. Loewenthal points out the points to which the observation of authors should be especially directed. We can not, to our regret, follow the author in his pathological considerations, assuredly of the greatest interest, but this would lead us too far beyond the limits of a simple analysis, and we shall confine ourselves to giving the conclusions of the author, which he has formulated in the following sixteen propositions:

1. The periodical hemorrhage which arises in the genital organs of the woman, is not the consequence of a rupture of a Graafian follicle (a rupture which ordinarily occurs at the same time), but of the disappearance of the tumefaction of the uterine mucous membrane; a tumefaction which is

by the name menstruation, correspond to the second stage of the sanguine flow, and consequently manifest themselves a relatively long time (about 10 days) after the debut of the uterine menstrual process.

The author passes in review the different theories of menstruation and its relation to ovulation; they are three in number:

1st. *The Classic Theory.*—The rupture or imminent rupture of a Graafian follicle (the ovule going out at the beginning or at the end of the hemorrhage) determines the menstrual hemorrhage.

Against this theory the following facts may be invoked:

(*a*). The veritable debut of the uterine menstrual process takes place about 10 days later.

(*b*). The menstrual blood can only come from the already tumefied mucous membrane; but the sanguine congestion does not play the first role in this tumefaction.

(*c*). The neck of the uterus takes no part in this tumefaction and in this hemorrhage, which would be inexplicable, if the process, occurring in the uterus, were caused by a hyperæmia in consequence of ovulation.

(*d*). Complete normal ovulation, followed by fecundation, is unaccompanied by any sanguine flow.

2d. *New Theory* (Loewenhardt). The fecundated ovum belongs always to the nearest approaching epoch. The fall of the ovule occurs before the menstrual hemorrhage. If it be immediately fecundated, there is no sanguine flow. If it be expelled from the body, as takes place when it has not encountered the fecundating spermatozoa, the sanguine flow is produced.

Two varieties:

1*st Variety.*—The fall of the ovule does not occur until after the formation of the menstrual decidua (just before the appearance of the hemorrhage).

(*a*). *Objections.*—In this case there is no plausible reason why the tumefaction of the uterine mucous membrane should begin already ten days before.

(*b*). If the ovule fecundated immediately after its fall takes several days in reaching the uterus, it can not prevent the retrogression of the decidua, nor the hemorrage.

(*c*). If the coitus, the soonest after the cessation of the hemorrhage, which is the fecundating coitus, for we can not admit that the spermatozoa can await the ovule for nearly 10 days.

2d *Variety.*—The fall of the ovule occurs when the decidua begins to be formed (about 10 days before the occurrence of the sanguine flow).

(*a*). *Objections.*—The diminution of the volume of the ovary, which can only be explained by the rupture of the follicle, has never been observed, except in connection with an ulterior sanguine outflow.

(*b*). The premenstrual malaises, which may be considered as concomitant phenomena of the development of the follicle, are always common before the hemorrhage, and disappear with it.

(*c*). There has never been observed at the beginning of the formation of the menstrual decidua, a periodic rupture of the follicle.

(*d*). (as *c* or *a*).—It can not be admitted that the spermatozoa wait 10 days.

(*e*). Coitus practiced long after the beginning of the tumefaction of the uterine mucous membrane, and even immediately before the beginning of the next stage, may still be fecundating, and suppress the sanguine flow.

3*d. Theory of Beigel, etc.*—Ovulation and menstruation exert no reciprocal influence. Both are the consequence of a genital impulse.

(*a*) *Objections.*—The menstrual process is periodic, whilst the cause to which it is attributed, the sexual excitability of the woman, may be aroused at any moment.

(*b*). In cases of congenital absence of the ovaries there is never any menstruation, whilst the genital excitability is not always wanting.

(*c*). When, in consequence of castration, menstruation has been suppressed, the generic excitability may still persist intact, or be only slightly enfeebled.

(*d*). All the organs participate in the menstrual hyperæmia. The body of the uterus alone takes part in the hemorrhage, never the cervix; and this general hyperæmia comes on uniquely, immediately before the beginning of the flow, whilst the real debut of the menstrual process begins about ten days before.

Theory of Loewenthal.—After having thus discussed the various theories, the author asserts that everything speaks in favor of a relation between ovulation and menstruation, but that this relation is not *immediate;* ovulation being considered as the cause, and menstruation the consequence. We can therefore only consider this connection as *mediate,* and are compelled to admit that between ovulation, the cause, and menstruation, the consequence, there is room for a third factōr. This third factor the author considers, is a non-fecundated ovum.

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independent of this rupture, and has occurred before the hemorrhage.

2. The menstrual decidua is caused by the nidification of the last ovule escaped from the ovary and its remaining unfecundated.

3. It is formed in the same way as the decidua of pregnancy when the ovule has been fecundated, and it is destroyed after the death of the ovule, when this ovule has remained unfecundated.

4. As regards each individual menstruation, the rupture of the follicle and the menstrual have no other causal relation as bearing one upon the other, than this fact, that the causes and active circumstances arising at the period of the establishment of the sanguine outflow, are at the same time an occasional cause of the rupture of a mature follicle.

5. The coincidence of a rupture of a follicle and of the hemorrhage, is not at all necessary. Both may occur independently of each other. A rupture of a follicle may occur without there being at the same time production and retrogression of a menstrual decidua, and the hemorrhage, this secondary consequence of the last escape of an ovule, may occur without the simultaneous rupture of a follicle.

6. The periodicity of the hemorrhage is due to the extra-follicular vitality of the ovule that has fixed itself upon the uterus and remained unfecundated. The anomalies of this periodicity (general or individual) depend upon idiopathic or accidental influences, determining a shortening, or even a total absence of this extra-follicular vitality of the ovule.

7. The ovule coming from the follicle, and having reached the uterus, is there fecundated, chiefly about the time of the last menstruation; it is then uterine, or the ovule has fixed itself outside of the uterus—it is then extra-uterine.

From all this the following practical lessons may be learned:

8. The menstrual hemorrhage, not being a physiological function, nor the necessary concurrent manifestation of a physiological function, but the direct consequence, and reinforced by innumerable repetitions of a phenomenon, produced by civilization—the non-fecundation and death of the ovule—it has all the characteristics of, and exerts the same influence as all other hemorrhages, which are always pathological.

9. Like these, and by the same influences, it is augmented or diminished.

10. The hemorrhage that necessarily accompanies the destruction of the menstrual decidua, can only then be considered inoffensive, when it occurs by diapedesis. A hemorrhage by rhexes is always useless and may become dangerous, because it becomes a cause of debility of the organism.

11. The degree of this danger stands in direct relation to the quantity of blood lost, and the quantity plus the quality, of the whole quantity of blood of the rest of the organism.

12. In these cases there is every reason why we should moderate the menstrual hemorrhage, as we would do in any other hemorrhage.

13. The best means for this purpose are, repose in bed, and hot injections.

14. On the other hand, the absence of menstrual hemorrhage (idiopathic amenorrhea) should never be regarded and treated as a malady. It is only a proof that a function not indispensable to the life of the individual (ovulation), from some cause or other (youth, age, pregnancy, nursing, feebleness) has not manifested itself, or not manifested itself completely at its proper time, that is to say, about four weeks before.

15. Admitting the important role played by the Fallopian tubes, as pointed out by Lawson-Tait, in cases where uterine dysmenorrhea, hemorrhages, fibroma or other morbid processes, demand that the anticipated menopause be brought about, solpingotomy instead of castration would be indicated (partial resection of both tubes after ligating them).

16. If, in making castration, for any of the above mentioned causes, both ovaries can not be completely removed, we must have recourse to solpingotomy.—(*Archives de Tocologie, Jany.* 1885.)

Suggestions from Dispensary Experience for the Surgery of General Practice.

Read before the Philadelphia County Medical Society.

BY CHARLES W. DULLES, M. D.,
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Reported for the CINCINNATI MEDICAL NEWS.

It has often seemed to me that the experience gained in the many dispensaries of our large cities is not made of as much service to the profession as it might be, and that it would not be amiss if those who have the advantages which these positions afford, would occasionally try to put into accessible shape the lessons which they have there learned, and lay them before their brethren for adoption or correction. And, because I have had to learn by experience some things, which it would have been better for my patients if I had found out in some other way, I have thought it might be worth while for me to invite your attention to certain notions in regard to the kind of surgery which occurs in general practice, which I have gathered during the past ten years, and which, if they are correct, may be helpful to others; if they are incorrect, I shall be glad to have them criticised.

In order to arrange a somewhat desultory subject in as orderly a way as I can, I shall divide it as follows:

1. The examination and diagnosis of surgical lesions.
2. The cleansing of wounds.
3. The control of hemorrhage.
4. The dressing of wounds.
5. Bandaging.
6. Splints.
7. The sling.
8. Constitutional treatment.

1. The Examination and Diagnosis of Surgical Lesions.

I trust I shall not be deemed officious in urging the importance of thoroughness and discernment in making up a diagnosis as to what is the nature of the lesion for which one is consulted by a sufferer. Every writer, and every lecturer, dwells more or less on this point. But, in spite of all that is said and written, mistakes are constantly being made, which greater care would have prevented. I have seen fractures treated as contusions, and contusions as fractures, over and over again. I have seen a patient treated for a fracture at the lower end of the radius with the time-honored Bond's splint, who had nothing the matter near the wrist, but who had a severe and dangerous contusion of the elbow-joint. I have seen hydroceles treated for years as herniæ, and have been called to operate for strangulated inguinal hernia when there was only a hydrocele of the cord, innocent, and easy to cure. I have seen a psoas abscess mistaken for a hernia, and over and over again sinuses of the face, due to disease of the root of a tooth, treated in vain as simple abscesses, the recognition of the cause and the removal of the offending tooth being followed by a prompt recovery. I do not care to cite many mistakes of my own, but I can not forget my mortification once when caught napping by an ulcerated knee, the syphilitic nature of which was indicated and easily demonstrated when a more experienced surgeon asked to see the other leg. On the other hand, I have known lesions to be characterized as syphilitic on what I thought to be an unwarrantable suspicion, and a cross-examination to show that what a patient called a chancre, could not possibly have been the initial lesion of syphilis.

Of course, this is not the place to discuss the diagnosis of various lesions, but it may be worth while to call attention to the importance of making our examination include, not only the part believed by the patient to be injured, but also the surrounding parts—muscles, bones or joints, as the case may be, for some distance above and below. The opposite and corresponding parts should often be looked at, for purposes of detection or comparison. Nor should we hesitate to call to our aid the probe or the exploring needle, both of which are valuable and harmless instruments in judicious hands.

2. The Cleansing of Wounds.

My own experience has led me to the belief that this salutary proceeding is sometimes overdone. When we see a scalp-wound, or a laceration of the face, covered with a scab, even though it be not a very handsome one, good surgery does not, I think, require us to take it off, unless the appearance of the neighboring parts indicates that an inflammatory process is going on under it. Nor, when a crushed finger is enveloped in a dry covering of blood and machinery grime, need we think our patient's safety depends upon a thorough removal of these. On the contrary, I should say his rapid recovery often depends upon our letting them alone. But scabs that cover pus may always be removed with advantage; and foul secretions, or accumulations, can only do harm, and must be cleaned out. So the cleansing of wounds is not only an æsthetic, but also a salutary, procedure. As to the method of cleansing, I am a convert to the views of Mr. Sampson Garngee, who never uses a liquid for cleansing when it is not specially indicated. Careful mopping with dry cotton or lint will do far more than those who have not tried it would imagine. Rubbing is rarely called for, but just touching with the cotton or lint, and pressing it down with more or less firmness, as the circumstances require. But, when the case demands it, we must not hesitate to rub firmly, even a little roughly, or to pick off or cut off what sticks tight to the healthy tissues.

In this connection, I wish to emphasize what I think is a very important matter in washing of wounds and sores, namely, that the same fluid should never be used twice; that is, it should not be dipped from a basin and allowed to flow from the wound or sore into the same vessel, and then dipped up and used again, and so on. The best way of washing a wound would be to let the water run upon it from a hose with a regulated force. But almost, if not quite, as good as this, is the plan of having one vessel to hold the wash, and another to catch the drippings, and to apply the wash by letting it fall in a steady stream from a clean sponge or a mass of oakum. The size of this stream, and its force, can be easily regulated by the force with which the sponge or oakum is squeezed, and the height at which it is held. If the dripping mass be grasped in the hand and held with the thumb up, by well-regulated squeezing a single stream can be made to fall from the dependent portion, in exactly the place and way we wish.

3. THE CONTROL OF HEMORRHAGE.

An important part of the preparation of a wound for dressing, is the control of hemorrhage—I do not mean the hemorrhage from large vessels, but that from small ones, such as are usually encountered in the surgery of general practitioners. Our colleague, Dr. Roberts, has, I think wisely, deprecated the routine use of styptics, and I quite agree with him that, for almost all small vessels, the pressure of a well-applied dressing will do all that is needed in the way of controlling hemorrhage. Such a dressing may be made of dry lint, bound on with moderate firmness—actual tightness is not called for—and often one will have, in a little while, an imitation of Nature's favorite method of healing, by the formation of a scab, made up of the dried blood and the tissue of the dressing. The essentials for controlling moderate hemorrhage are, dry dressings and moderate compression. Pressure alone is sufficient to control the bleeding from scalp-wounds, which are sometimes spoken of as if they were troublesome to deal with. It is remarkable, at times, to hear men describe the pains they have been at to ligate an artery of the scalp, in view of the fact that this is never indispensable. A compress and a bandage will control any vessel in the scalp, and almost anywhere else; and, if an unruly patient is likely to pull a bandage off, a pin, even a common one, may be thrust under the vessel and brought out again beyond it, so as to hold it as long as any one could wish. If still greater security be desired, it can be had by adding a "figure 8" to this pin.

Hemorrhage from small vessels can often be controlled by a firm pinch with the forceps, or the vessels may be drawn out and twisted round several times. This will often obviate the necessity for ligatures, in operations such as circumcision of infants or children. Sometimes the arteries in the fingers will bleed in a most troublesome way. If the bleeding can not be stopped by pressure or torsion, it can be controlled by a pad of lint and a few circular turns of adhesive plaster. Persistent hemorrhage from an alveolus, in one with a hemorrhagic diathesis, I have controlled, when plugging gave only temporary relief, by injecting a fine stream of cool water against the bleeding point. Bleeding from the wound of the palmer arch can, I believe, almost always be controlled by a pad and bandage.

4. Dressing of Wounds.

Dry Dressing.—Nature's method of protecting wounds is by the process of scabbing; and when we reflect upon the successful way in which this operates in all the lower animals, and often in man too, we may wonder that it should be almost a matter of routine to remove scabs in surgical practice. It may gratify our curiosity, it may even aid our study at times, but it is often of no advantage to the patient, to remove from a disfigured face, or a cut head, the crusts which are Nature's reliable antiseptic dressings. From what I have seen, I believe it is best to leave such crusts undisturbed whenever possible, and if they are objectionable in an æsthetic sense, simply to cover them with something better looking. Further, it may be said that an artificial scab made with lint, or tarletan, or thin muslin, and collodion, forms one of the best dressings for simple incised, and not a few lacerated wounds, which have ever been devised.

In the case of strumous ulcers and the weak granulations of large burns, I have had the happiest results from setting aside ordinary dressings, and applying a powder in this way. In these latter cases, I have sometimes practiced exposure of the granulating surface to the air until the serous film covering them has coagulated and formed a species of skin over them. And, to my astonishment, I have seen such a film actually transformed into thin skin without displacement. This is a fact which I believe does not accord with the accepted laboratory idea of new skin formation; but it is a fact, nevertheless. And I would especially urge upon others this plan of treatment in the class of cases referred to—old burns and strumous ulcers—which are, I believe, often kept open by the ointments and other warm and moist dressings used to promote their healing.

Water Dressing is another good dressing, which, I believe, is too little appreciated. I have seen a number of wounds of the fingers and hands, for example, done by machinery, in which rapid and painless recovery has followed the application of wet lint, which was wetted again as often as convenient, with a lukewarm, or cool, solution of common borax. Patients with such injuries I have often dressed with cold water, and told them to dip the finger or hand, as the case might be, in a solution of a teaspoonful of powdered borax in a pint of water, warm or cool, as they found more pleasant, without removing the first dressing.

Ointments.—To discuss fully the ointments in use in simple surgery, would require more time than you have to give me. So I may perhaps be justified in stating that the most universally applicable ointment for open wounds which I know of, is one made of equal parts of carbolic acid ointment and oxide of zinc ointment. This has seemed to me to do more good than any other ointment in the case of granulating surfaces, unless they were syphilitic, and in these I think mercurial ointments sometimes do better. A little point in regard to the use of ointments is, that they should be confined, as nearly as possible, to the open surface. A piece of lint or muslin should be spread with the ointment, and trimmed down to the exact size of the sore. If spread on the adjacent skin, it will often, after a while, set up an artificial eczema, which is very annoying to a patient.

The Poultice.—I now come to a subject which has interested me a great deal, and about which I have some convictions, which may be exaggerated, but which are founded upon careful observations made during about five years. One of these convictions is, that the use of poultices is very much overdone. Poultices are of service when it is desired to increase vascular activity in low grades of inflammation, with depressed circulation, and when it is desired to promote or increase pus formation. But I think they do their work in a short time, and that their prolonged use may bring about a condition in which Nature seems unable to get beyond the production of a very feeble and unhealthy sort of tissue. Kept hot and frequently changed, so as to get away the filthy discharges, for a few days they are invaluable; but allowed to cool, left on long at a time, and continued for many days, they do great harm. When a slough is to come away, as after cauterization, or the opening of a felon or carbuncle, nothing which I know of equals a poultice for comfort and effectiveness. But, even in these cases, one should, I think, give them up as soon as the slough is away, and treat the wound as a simple ulcer.

The result of these observations has been, that I make but little and brief use of poultices in these troubles. A felon I open deeply whenever I think there is pus actually present—never before, for then they can often be aborted—then I encourage bleeding by a good soak in very hot water; then I poultice for *one day only*, soaking frequently in water as hot as can be borne. After this I dress with pure laudanum, or lead-water and laudanum, or a simple ointment, unless there is obviously a slough forming; and I usually can dismiss my patient in a few days. When a felon has gone on to destruction of the vitality of bone or tendon, poultices may be used longer; but I believe one should be always on the look-out for the time when they can be thrown aside.

The best treatment of palmar and plantar abscesses, or rather of deep inflammation of the hand and foot, can not be stated in a few words; but alas! for the patient whose doctor is too timid to use the knife, and too assured of the saving grace of the poultice. Too little of the one and too much of the other, is a sad combination.

Strapping with Adhesive Plaster for ulcers, is troublesome, though very valuable, surgical procedure. It is common in this country to put straps on only part-way round a limb and to fear the strangulation which may follow going all the way round. But this fear is groundless. In England, straps are applied by placing the middle of one at the part opposite the ulcer, carrying the two ends forward, crossing them over the ulcer and fastening them down at the opposite side from which they start; and I have practiced this method myself with perfect safety and success. So much as this, is, however, rarely necessary. A good plan is to apply narrow straps *at intervals* over an ulcer and to place on top of this interrupted adhesive-plaster support, some stimulating ointment on lint—and over all, cotton batting, or oakum, and a bandage. But two things, sometimes neglected, are essential to the best success of strapping: one is, that the straps be not too wide—say about an inch or less in width—another is, that they should draw the sides of the ulcer together a little, and not simply be plastered against it.

The pressure which can be secured with adhesive straps, I have also found useful in a number of inflammatory conditions. I need not mention the strapping of inflamed breasts. But the application of narrow straps will also furnish great relief in the case of boils and carbuncles, and I have had a case of paronychia which resisted assiduous treatment for a long while, but in which immediate relief and rapid recovery followed the application of a circular dressing of adhesive plaster round the end of the finger.

Strips of thin material, applied to the surface and painted with collodion, make a good and comforting pressure upon boils and small carbuncles. Collodion painted directly on the skin, is also often very efficient for this purpose. I have found, finally, that styes on the eyelids can often be aborted by touching them with the point of a small camel's-hair brush, dipped in collodion. Of course, care must be exercised, when doing this, not to put any of the collodion in the eye.

5. BANDAGING.

A mistake is sometimes made in bandaging too tight, and I have once seen a case where gangrene was caused in this way. But, fortunately, the time-honored wood-cut, which serves in many works on surgery as a warning against this error, furnishes the best information most of us get as to what such a thing is. There is another error, much commoner, and that is bandaging too heavily. I have often seen patients who came with a member firmly bound to a splint, with the laudable object of preventing injurious mobility, but loaded down with successive layers of bandage, until the heat had set up an active inflammation, with the customary accompaniments of pain and swelling, which subsided when the lightest possible splint was used and the thinnest possible bandage.

Sometimes it is desired to apply water after a bandage has been put on. In such cases, of course, the bandage should be thin and open-meshed, and put on as loosely as is consistent with safety. For this purpose, the cheap unbleached muslins are far better than the fine ones furnished by the instrument-makers. Water can also be insinuated under a bandage, if the member has first been wrapped in a layer of absorbent cotton or lint.

The placing of cotton under a bandage has other uses than to facilitate the application of water. One of the most important is, to exert uniform pressure, to prevent swelling, to promote absorption of effusions. One who has not tried it systematically, would hardly believe what this sort of compression will accomplish ; and I think it might be set down as a rule, that all contusions of joints, and most inflammatory swellings, should be subjected to the equable compression and gentle warmth of dry cotton and a pretty firm bandage. Here again I have found it advantageous to follow the suggestions of Mr. Sampson Gamgee, and have come to prefer this method to the traditional lead-water and laudanum.

6. Splints.

I have already once or twice incidentally indicated what I think to be an important point in regard to splints, and worthy of more particular mention—I mean their weight. A splint should be no heavier or thicker than is absolutely necessary. The lighter the better, is, I think, a good principle. Let light pasteboard be used when possible, or the very thinnest wood. Nor need their weight and thickness be increased by padding. This is especially true in regard to splints for the arm, where wooden splints are oftenest used. I find it sufficient to wrap a thin wooden splint in waxed paper, to make it perfectly smooth and keep it clean, and to interpose between it and the arm a double strip of lint. These I fasten in place, on the arm, with three or four strips of adhesive plaster, avoiding the seat of fracture or other injury, and covering all in with a light bandage. Then the parts can be examined at any time by simply removing the bandage, without taking off the splint or disturbing the seat of the injury. Of course, little wads of cotton may be placed where the member does not touch the splint, and bony prominences must not be pressed too hard against it.

And here I wish to urge upon your attention what I think the best splint for the forearm and hand. Since adopting it, I have found that, like many other supposed discoveries, it is by no means new. But it is so little used that I think it can hardly be much better known to many others than it was several years ago to me; I mean *the posterior, straight splint.* Any one who studies a forearm will see that when the hand and finger are extended, the dorsal surface is almost an accurate plane, while the ventral surface is very uneven. Arguing from this, I thought it well to follow the apparent hint of Nature, and to use this surface for my splints. I soon found that I could treat injuries of the forearm and hand, requiring a splint, very successfully with a thin, straight splint, applied in the way just described. And I may say that I have found it much easier to prevent stiffness of the wrist-joint—the bane of fractures at the lower end of the radius—by this, than by the time-honored Bond's splint, which I have not used for several years. With the Bond's splint I have, in former years, had much trouble from stiffness, and seen much trouble when it has been used by others, because, while the position of the hand seems to be favorable to motion, I have not found it really so, but that the patient's fingers are either bound to it too firmly, or they themselves clasp the block so constantly and so rigidly, in spite of all injunctions to the contrary, as to tend to stiffening of all the joints involved. I need scarcely add to what I have already said, any further arguments as to the advantage of the posterior splint in the way of lightness and the facility of it affords, when used in the way I suggest, for examining the seat of injury without disturbing it. The Bond's splint, on the other hand, as frequently applied, is heavy, hot, more or less painful, and troublesome to remove for subsequent examination.

7. THE SLING.

It ought to be an invariable custom—with those rare exceptions in which for the purpose of drainage it must be reversed—to have the sling so regulated that it will *support the hand at a higher level than the elbow.* A neglect of this very simple, and, I believe, very important, rule is sometimes followed by great pain and swelling of the hand, and a degree of discomfort which would be incredible to one who had not investigated the matter. Further, a sling should be broad enough to support more than a narrow strip of the arm, or one will be apt to find its position marked by a furrow dividing two swollen parts of the arm, in a manner which is not neat, and which suggests possible injury or interference with the most rapid recovery. Another point about slings concerns the length of time they should be used.

There are other matters which have occurred to me in my hospital and private experience, of which I might speak, if I had time and you had patience enough. But I must close with one suggestion which I think of too great importance to be wholly omitted; this is: never to neglect, in treating a surgical injury, the constitutional condition of a patient. I have rarely seen a surgical case which was not the better for some medical treatment. A look at the tongue, and a question or two, will usually convince us that a patient will be helped by having the bowels cleaned out with a brisk saline purge.

DISCUSSION ON SUGGESTIONS FOR SURGERY.

Reported by G. Betton Massey, M. D.

Dr. John H. Packard, in opening the discussion, said: The ground embraced in Dr. Dulles' communication is so very extensive, that it hardly admits a full discussion; but indeed, what I shall have to say is not so much in the way of unfavorable criticism as of indorsement and addition.

First, as to salivary fistula: while admitting the ingenuity of the proposed bed, I think it would be in many cases rendered doubtful by the difficulty of procuring the discharge unmixed with saliva.

In wounds of the face, one important object is the avoidance of unsightly scars; and hence the removal of scabs or crusts of blood is often imperatively called for, in order that the surgeon may assure himself of the proper coaptation of the edges.

I indorse entirely what Dr. Dulles says of the propriety of cleansing the surfaces of wounds with water. A very handy way of doing this, especially in private practice, is by means of a syringe, which need not be very large. An article known as "Hall's Health Syringe," may be used to advantage; the liquid to be used being placed in a bottle, and not coming in contact with the bulb or valve, so that medicated washes may be employed without damage to the instrument itself.

As to hemorrhage, I would qualify what Dr. Dulles has said. We are not, in my opinion, as a general rule, justified in closing a wound until the bleeding has been completely checked; hot water will generally effect this, or if there is a small vessel spouting, a serre-pin may be applied for a short time. Whenever prompt healing is to be aimed at, clots should be carefully removed before bringing the edges together. In saying that it is well to allow some blood to flow from a wound, and to empty the vessels in its neighborhood, Dr. Dulles is in accord with Paré, who, three hundred years ago, recommended such a course after the performance of amputation.

I concur with Dr. Dulles in his condemnation of the careless and slovenly use of styptics, and especially of the tincture of chloride of iron. During the late war, in the military hospitals, I many times saw wounds stuffed with this article, forming a mass of mud which had to be dug out, the bleeding continuing beneath it. Some of the gentlemen here to-night, I know, shared this experience.

One of the best and cleanest styptics, known as that recommended by the elder Pancoast, consists of potassium carbonate, soap and alcohol. It has the disadvantage of causing very sharp pain for a few moments after it is applied, but is very effectual. In cases of alveolar hemorrhage, a method which I have found useful, is to make a small cone of cork, cover it with "styptic cotton," and press it into the cavity. Such a plan might answer also in cases of pus oozing from vascular bone after the removal of sequestra; but hot water generally suffices here.

Hemorrhage from either palmar arch ought, in my opinion, to be dealt with by cutting down upon the wounded vessel, and tying it on either side of the orifice, or securing both ends if it is divided. I have seen so much trouble from less decided practice, resulting at last almost always in a resort to the procedure just named, that I believe it to be the best surgery to adopt the latter in the first place.

With regard to dressings, I think lead-water and laudanum very valuable, but it needs to be sufficiently diluted, so that absorption may take place, otherwise it simply shrivels and corrugates the skin. A very large list of ointments, vaselines, with or without morphia, resin cerate, compound elemi ointment, etc., might be added to the small list given by Dr. Dulles.

In cases of painful ulcers, or raw surfaces in healing wounds, which have sometimes exquisitely sensitive spots, the covering of such spots with a little piece of the "skin-plaster," sometimes called "gold-beaters' skin," will often afford efficient protection, and allay the pain given in dressing.

A form of poultice which has given me much satisfaction is the "dry poultice," consisting of an even sheet of raw cotton, applied warm to the part, and then covered with oiled silk, oiled calico, or waxed paper.

Collodion is rendered much more efficient by the addition of gtt. v of castor oil to each *f*℥i. This gives it a slightly unctuous or greasy feel, and makes it both more flexible and more adhesive.

Bandages are perhaps often applied too tightly, with the idea that they will retain their hold better; yet we very rarely see serious damage done in this way, and I think the more common error is to bandage so loosely as to fail of giving the parts proper support.

It seems to me that the practice of confining the rest of the hand, or a large portion of it, in cases of injury to a finger, is eminently judicious; the patient is very apt to use the hand so freely, if this is not done, as to interfere with the well-being of the injured member.

With regard to the padding of splints, I think cotton is very often improperly used. It ought to be in very even sheets, of carefully adapted thickness, and should be changed at once when it becomes sodden and lumpy with perspiration. I prefer it decidedly to the course and thick oakum sometimes employed. I have often used a doubled fold of what is known as Canton flannel, for the lining of splints, with satisfaction both to myself and to the patient.

I would like to ask Dr. Dulles, if, in fracture of the middle of forearm he would apply a dorsal splint?

Dr. Dulles: I would in some cases.

Dr. Packard: I think that in the application of a single splint to a fracture of one or both bones of the forearm near the middle, there would be danger of loss of the interosseous space by pressure of the bandage, as well as of irregular union of the fragments by the rotary movement allowed to the part. The latter can be prevented, however, by the simple device of extending the splint up along the arm, with an angle at the elbow.

The subject of the so-called Barton's fracture (in reality Colles') is too large for me to take up now; but I must say that I can not see how such injuries can be efficiently treated with the dorsal splint. Good results have been claimed to have been obtained with every one of the various forms of splint proposed for the treatment of these fractures; but the fact is that the mere restoration of the use of the arm has been regarded as a good result. I have seen many cases which had been treated by the most careful surgeons with Bond's splint, for example, and in every one there was a marked deformity, and a certain loss of power of flexion, remaining at the end of many years; in some there was notable weakness, especially in the action of pushing. I think we ought only to be satisfied with the most perfect attainable results; with the restoration of the broken limb to its exactly normal shape, its full power, and its free motion, as nearly as it is possible for us to effect it.

Dr. S. W. Gross: The ulcers, alluded to by Dr. Packard, characterized by a great deal of pain, may be found in other than syphilitic subjects, although they are especially frequent in such cases. The pain is caused by the exposure of the nerves in the granulating mass. By finding the sensitive points, the pain may be relieved by dividing the nerve trunks with the tenotome, applying nitric acid and then a watery solution of morphia and chloral.

I don't think Dr. Dulles wants blood to remain in a wound; it keeps the surfaces apart and furnishes material for decomposition and its consequences. I quite agree that no haste should be made in taking up small arteries, but am not prepared to indorse the statement that all hemorrhages of the palmar arch can be treated by pressure alone. I can not but think he would tie the principal arteries. In treating such a wound it becomes a duty to arrest hemorrhage by ligature, acupressure, or other precaution, with subsequent application of the roller bandage.

To prevent gangrene, the roller bandage should be applied carefully and removed after the first eighteen hours. The compress then readily remaining in place from adhesion, the bandage may be reapplied lightly. If hemorrhage becomes imminent, an excellent tourinquet is the flexion forcibly of the bandaged elbow.

I enter a protest against the wholesale denunciation of styptics of the previous speakers. I do not think the surgeon should apply Monsel's solution when ordinary measures will answer, but there are certain wounds in which styptics are absolutely necessary. Thus, in a case of removal of the hypertrophied tissues of the palate, the surface was bleeding severely, the blood coming from the posterior palatine artery, where it was impossible to apply a ligature or the hot iron; a watery dilution of Monsel's solution was applied on cotton, and firmly pressed against the bleeding part with the finger, with immediate results in stoppage of hemorrhage. The importance of black heat as a hæmostatic is too little appreciated.

Dr. Packard: I desire to say that I did not denounce styptics, but merely their improper use.

Selections.

Abscess of the Liver.

The symptoms of abscess of the liver are not uniform, because in some cases we have the action of the cause still persisting and adding its phenomena to the effect produced by the suppuration of the liver, and also in consequence of the situation and size of the abscess as well as the peculiarities of the patient. The main phenomena, however, are few, consisting of a more or less marked enlargement of the liver as a whole, or of that lobe which is the site of the disease; of a hectic type of temperature, whose limits are in many cases not great, and in some cases, with no thermometric record, it may be denied that fever has occurred; of pain and tenderness over the liver, especially if perihepatitis coexists; with in not a few cases a reflected pain in the right shoulder, in those cases affecting the right lobe; and of progressive loss of flesh and strength. Jaundice is much more conspicuous by its absence than by its presence. The same may be said, so far as my experience goes, of melancholia. Of late years, owing to the extravagant statements of some writers, I have paid particular attention to this point, and have been strongly impressed by the absence of marked depression of spirits in these cases. One of my patients, in reply to the question why he was not melancholy, replied: "What is the use; I may as well put up with what is the matter with me." So that I am convinced that the connection which has been supposed to exist between these conditions is a fancied rather than a real fact. Moreover, autopsies in persons who have died with melancholia, do not establish the correlative proof.

Hepatic enlargement, associated with tenderness or not, and a fever of a hectic type, with some loss of flesh and strength, are in many cases the only symptoms of the disease. When the abscess discharges, or is in the way of discharging, we meet with additional symptoms, varied according to the avenues traversed. The channels thus sought in my experience have been, the pleura, bronchial tubes, pericardium, peritonæum, and intestine. Cases are on record of other methods of exit. Of these you will find mention in literature. I might add that I have never met with an abscess of the liver which discharged externally spontaneously; all such as were as on the way to do so were opened.

1. Abscesses of the liver can practically be divided into those affecting the left lobe, or the lower part of the right lobe, so that the abscess, when formed, produces an elastic or fluctuating tumor below the free borders of the ribs; and of those situated in the upper or posterior portion of the right lobe. The reason for this division is, that abscesses in the two former situations are easy of access, of diagnosis, and of operative interference. The abscess in the last-mentioned situation is the one which more often gives rise to difficulty in diagnosis, or, if diagnosticated, to doubt as to the bes and safest methods of interference.

2. There are several methods by which the existence or non-existence of adhesions between the liver and abdominal wall can be made out. The presence of hepatic friction, audible or tactile, shows the absence of adhesions, but the probability that they will soon be formed. If, on palpation, the edge of the liver remains fixed, and does not descend with respiration, adhesions have in all probability taken place. Again, a long needle—that of a hypodermic syringe or aspirator—introduced into the liver, will, if the outer end is left projecting some distance, move upward as the liver descends, and downward as the liver ascends, if no adhesions exist. But, if these have formed, then the needle does not move.

3. The difficulties which arise in the diagnosis of liver abscess may in many cases be surmounted by a careful survey of the history of the condition of the liver, and by exclusion of the existence of sufficient disease in other organs to account for the symptoms.

The mistakes which I have seen made have been:

a. To consider a liver abscess some other disease, as malarial fever (remittent and intermittent), typhoid fever, or tuberculosis.

b. To consider an abscess of the liver some other disease of the liver, as hydatids, cancer, congestion, fatty liver, hyperplasia.

c. To consider the swollen liver an aneurism of the aorta, especially in case of abscess of the left lobe of the liver, where pulsation was communicated to it by the aorta.

d. To consider an abscess of the gall-bladder, an abscess of the liver, and *vice versa.*

e. To consider a supra-hepatic abscess an abscess of the liver.

f. To consider an abscess of the liver one of the abdominal wall, and *vice versa.*

Some years since the writer had supposed that a distinction could be made between liver abscess and cancer of the liver by careful attention to the patient's temperature; but subsequent investigation has shown that, in cases of rapidly growing or disseminating cancers, a hectic type of temperature may exist.

4. As regards the ætiology of liver abscess, I believe that many of the apparently idiopathic are of traumatic origin. I have in several instances ascertained its occurrence in persons who were in the habit of lifting heavy weights, particularly those who did so in hot places, as firemen, those unloading vessels, etc., by placing the right elbow firmly against the side, and then having the weight raised in this way. By this statement I do not mean to deny the probable influence of bacteria in the origination of abscess, but to attribute to traumatism the establishment of that favorable condition which will allow of abscess formation.

In concluding, I might add to this paper, which is intended to present the subject in a practical manner and as it has occurred to the writer, a few remarks on treatment. I believe that all accessible abscesses associated with an adherent liver are best dealt with by free incision, washing out with an antiseptic fluid, the introduction of a drainage-tube, and by antiseptic dressing.

The writer had occasion, in one case of non-adherent liver with abscess, to employ the following means of promoting adhesions: The abscess was situated in the lower portion of the right lobe, so as to be reached below the free border of the ribs. An abdominal bandage was wound moderately tight around the body, and then the abscess was emptied by aspiration through a cannula, a trocar being used instead of the needle. After emptying the abscess, the cannula was allowed to remain, care being taken to prevent access of air by a valve of adhesive plaster. In a few days the cannula was removed and reintroduced an inch and a half from the point of previous puncture, and again, as before, allowed to remain. After this, hepatic friction, which had previously been audible, disappeared, and the motion of the liver with respiration ceased, proving adhesion. Then a free incision was made between the two places through which the trocar had been introduced.

The use of the abdominal bandage is sufficiently manifest as a means of preventing motion of the liver, and of holding it fixed, and needs no special comment. Under such treatment a patient should be kept absolutely quiet in bed. The proper treatment of the large abscess in the posterior part of the right lobe is a matter of considerable doubt. In many cases aspiration is the only resource. Should the abscess, however, be near the surface, and this can be ascertained by the depth to which the needle attached to an aspirator has to be introduced before pus is reached, the writer believes that, if the abscess had been aspirated and the sac refilled, then it would be wiser to make a free incision, even should it be necessary to exsect a portion of a rib in order to accomplish the drainage of the sac. A careful consideration of each case would be necessary, as without proper precautions the pleural sac would be opened.

The medical treatment must be symptomatic. The writer believes that rest, a cool climate, and maintenance of the nutrition and strength of the patient, are the main points to be secured. The important point is to secure an early and safe exit for the pus.

The writer has met with two additional cases of liver abscess since writing the above. One of these affected a laborer, who was in the habit of lifting heavy weights, which he carried on his left shoulder, supporting them by his right hand carried over his head. The abscess was situated in the right lobe, upper and right portion. The liver did not descend below the free border of the ribs, and was adherent. The symptoms were pain in the right shoulder and in the right side, loss of flesh and strength, with some febrile movement, and nocturnal perspiration. The case was referred to me by Dr. Fruitnight, of this city. Twenty-two ounces of a chocolate-colored fluid were removed by aspiration by Dr. Fruitnight, on November 29, 1884, by puncture in the ninth intercostal space in the inferior axillary region. I had recommended this space because it was the most tender on pressure, and, on exploratory puncture, there was revealed pus between two and three inches from the surface. The result is still uncertain.—*N. Y. Med. Journal.*

Salicin and Salicylates.

Dr. F. J. B. Quinlan, speaking of the above substances, thus expresses himself:

"From a very extensive experience, both of the natural alkaloid and of the artificial phenol derivative, it appears to me that there is no use in giving either in doses of 15 grains every third hour, and that the proper treatment of rheumatic fever is, having carefully noted the temperature, to begin boldly with from 20 to 50 grains of salicin, according to the severity of the symptoms, and to twice renew this dose at hourly intervals. If, at the end of three hours, the temperature be found reduced at least one degree Fahrenheit, the dose may be persevered in for three hours more, when reduction of from two to three degrees Fahrenheit will probably be found, with a corresponding improvement of symptoms.

If, on the contrary, at the end of the third hour the temperature should be found unaltered, or even increased, an addition of 10 grains should be made, and persevered in for two hours, at the end of which another 10 grains should be added if necessary; and, unless in some very exceptional case, the struggle must and will end in the victory of the alkaloid, and that without the slightest unpleasant symptom. I have several times given 50 or even 60 grains every hour, but this is seldom necessary. When I began early last year with these heroic doses, it was suggested to me that there might be a risk; and I accordingly proceeded to test what was the largest dose that could be borne without inconvenience.

Catherine C., aged 42, an averagely strong adult, was convalescent from acute rheumatism. She was up every afternoon, and was taking 30 grains of salicin daily, to prevent the relapse which is liable to occur if the drug be abruptly abandoned. On March 14th, of last year, I commenced a daily increase of five grains; and on March 24th she took an eighty-grain dose of salicin, and continued it four days without any apparent inconvenience. This experiment was interesting at the time; but I have since given healthy patients, who were not on a course of salicin, as much as 120 grains at a time, without any apparent result.

It has been asserted that cases of rheumatic fever treated by salicin, or by the salicylates, are more liable to cardiac metastatic troubles; but it is entirely contrary to my experience of 102 cases so treated, in which there were only five cardiac cases. One of these, Margaret D., aged 23, terminated fatally; but for this there were circumstances fully accounting. The other four made perfect recoveries; one of them, Henry McD., a cabdriver, aged 27, being of very great severity and persistency; and, in his case, it may be remarked that the salicin for the rheumatism and the gray powder for the endo- and peri-carditis, were given together. In any case in which there is the slightest want of tone or fullness in the systolic sound of the heart, I am in the habit of applying a large fly-blister over the whole cardiac region; and this I regard as a most important adjunct to treatment, and a prevention to cardiac complication. Salicin is best taken on the empty stomach; and the handiest mode of administering it is either a capsule or wafer-paper. Suspended in milk, it is easily swallowed. Dr. Maclagan has remarked its tonic after-effects during convalescence; and this I can fully confirm.

No practical physician will for a moment doubt the antipyretic powers of salicylic acid, or of its more handy and soluble sodium salt, in the treatment of acute rheumatism. To promptly master this disease, however, they must be given in hourly doses of from twenty to fifty grains; and I have seldom so employed them without producing nausea, vomiting, general depression, drumming of the ears, and occasionally temporary interference with sight or hearing. It is difficult to account physiologically for the marked difference in the clinical action of salicin and of the salicylates; and if we admit the hypothesis, generally received at present, that salicin is converted, in the system, into salicylic acid, the difficulty is proportionately increased. I see many objections to this view; and, without advancing any speculative opinion on an obscure point of therapeutic chemistry, would suggest the consideration whether both salicin and the salicylate are not converted into salicyl. There is yet another possibility of accounting for the sickening and depressing effects occasionally produced by the salicylates, namely, that the acid made from carbolic acid is sometimes impure. Salicin, in latter years at least, is almost invariably a pure product. Reviewing the whole subject, I decidedly lean to the use of salicin in preference to any of the salicylates. It will do all that they can do; it will do so more effectually, and without any ill effects; and lastly, the dose of salicin is practically unlimited."—*Weekly Med. Review.*

Cincinnati Medical Society.

The following is a brief outline of Dr. Zenner's very interesting remarks on

CEREBRAL LOCALIZATION.

There are a variety of methods of research which have assisted us to our present knowledge of the function of the brain. In the first place, the study of Comparative Anatomy has been one of our greatest and most valuable aids. It has show us that the seat of conscious intelligence is in the cortex of the hemispheres; this is proved by the greater development of the cortex in man as compared with the lower animals; and again, in the higher races of man the cortex is more fully and elaborately developed than in the lower. The highest power has been proved to reside in the frontal lobes.

Another study which assists in the proper understanding of the functions of the different parts of the brain, is the science of Morphology. In the central convolutions of the cortex we have large cells, those of the type supposed to characterize motor cells; while in the occipital regions we have small cells, which, in all probability have sensory functions.

The third science which assists in arriving at proper conclusions in regard to the functions of the several parts of the cerebrum, is the study of Anatomy.

We have very accurate knowledge of the various peripheral parts of the nervous system; if these parts could be followed to their origin, our knowledge would be complete; but this is impossible. Yet we have assistance through other means. Prominent among these stands the study of those degenerative changes which result from disease. We have found, for instance, that when the function of a nerve is lost, the nerve itself undergoes various pathological changes. This matter was investigated especially by Turck and subsequently by Goodin. The subject was still further pursued by Flechsig, who studied the natural development of nerve tracts and systems.

But by far our most important factor in reaching a proper conclusion in cerebral localization, is experimental research.

To Flourens belongs the honor of advancing science most decidedly in this direction; his work was done early in this century, in the second or third decade. He demonstrated clearly, as it was believed, two vital points: First, that the cerebral cortex is the seat of the will and of consciousness, and second, that all parts of the cortex possess the same functions— though perhaps with slightly varying power. This was the doctrine universally upheld for half a century. Then new investigations brought to light facts which showed that Flourens' results were not altogether accurate.

Broca, in his researches in regard to aphasia, came to the conclusion that the seat of speech had a definite situation in the brain; this he demonstrated by various experiments. Some doubt, however, was thrown upon the value of the work of Broca through the negative results obtained by Trousseau. He proved that in at least some cases of aphasia no structural changes of the brain occurred. Yet further study has shown us that Broca's views were correct as far as they went. Soon after Broca came Meinert, who very materially advanced existing knowledge of the cerebral functions, through most careful and painstaking study; his researches are of great value to us to-day. He held that the cortex is the seat of conscious intelligence, and that all our knowledge is derived from external impressions; all impressions pass through the crura-cerebri—except those which we derive by means of the optic and olfactory nerves.

The relative development of the crusta and tegmentum indicate the degree of intelligence which belongs to the being; in man alone are the crusta and tegmentum of the same size; in lower animals the tegumentum greatly exceeds the crusta in size; in young children a similar disproportion exists, which disappears entirely when adult age is reached. The crusta is traced to the corpus striatum, and is connected with motion; the tegmentum is in relation with the thalamus opticus and corpora quadrigemina, and is connected with reflex functions; it is especially developed in infants and the lower animals.

The conclusions reached are, that the thalamus opticus is the seat of the reflex activity; and the other parts of the crura convey motor impulses.

Shortly after Meinert's researches, Fritsch and Hitzig published the valuable results of their experiments upon animals; they observed that, by irritation of certain parts of the brain, there could always be produced definite movements; and these movements were not of the simplest character only, but in some instances were complicated, and were such as required the co-ordination of several muscles. Objections were raised against these views, but it was clearly shown in the first place, that movements could be affected only when the irritation was applied to a definite part of the cortex. And secondly, though the irritation was applied at other points, however near the corpus striatum, no movements followed. And in the third place, in new-born animals, in which as yet there was no connection between the cortex and the corpus striatum, irritation was not followed by the movements.

Other experiments have been made by the removal of the cortex.

Dr. Hughlings Jackson has shown that the so-called "cortical epilepsy" consists in movements caused by the irritation of a certain part of the cortex.

The seat of the sense of smell is supposed to be situated in the gyrus hippocampi; but we have as yet very little evidence of the accuracy of this supposition. The only experiment bearing on this point is one of Monck; the gyrus hippocampi is situated at the base of the brain, and is consequently inaccessible. Monck observed in a dog, in which inflammation had destroyed this part of the brain, that the sense of smell was entirely lost.

The same investigator locates the seat of hearing in probably the second or third temporal lobe; his experiments were made on the dog.

Ferrier locates the seat of this sense in the first lobe. In the human being, the so-called "word deafness" seemingly dependent upon changes in the left temporal lobe, points to this as the seat of hearing; numerous instances have been recorded of deafness following disease in this region.

With reference to the seat of vision, experiments have more positively established the situation of this sense than of almost any other; numerous cases point to its location in the occipital lobe.

With regard to the seat of motion, experiments and physiology both go to prove that for the mouth and tongue the seat is in the lower part of the central convolutions; for the arms, the middle of the central convolutions; and for the legs, the upper part of the central convolutions.

REMARKABLE HEART LESION WITHOUT THE USUAL SIGNS.

Dr. Eichberg presented the *post-mortem* record of a very interesting and remarkable case which had come under his observation in the hospital, in the service of Dr. Mackenzie. The patient was under treatment for several weeks, with symptoms indicative of an irregular typhoid, though some of the manifestations were exceedingly perplexing and unaccountable. There were no indications whatever pointing to the unusual pathological condition of the heart which the autopsy revealed.

The *post-mortem* record, as given by Dr. Eichberg, was as follows:

Autopsy made forty-eight hours after death; the body that of a man apparently 30 years of age, fairly developed and poorly nourished. *Rigor mortis* moderately marked.

The lungs were slightly adherent, but otherwise normal.

The heart was not unusually large; its muscular tissue was soft and flabby. The right side was dilated, and filled with a soft clot. A peculiar mass was found between the leaflets of the mitral valve. This, on closer examination, proved to be a mass of vegetations, firmly attached to the anterior leaflet, covered by endocardium, and as large as the phalanx of the thumb.

The spleen was enlarged and softened, and contained eight hemorrhagic infarcts, the largest (at the upper border) having a base two inches in length. The spleen was six times its normal bulk. The infarcts were of various ages.

The liver was enlarged and fatty; on section translucent; no reaction with iodine. The left lobe and the spleen were intimately adherent, and could not be separated.

In the right kidney were two small cysts. Both kidneys showed some fatty degeneration.

The intestines were normal. The mucous membrane of the stomach was thickened and presented numerous ecchymotic spots.

The brain was normal.

Dr. Mittauer's Aperient Mixture (Alkaline Mixture of Aloes).—℞. Aloes, 2½ ℥; bicarbonate of sodium, 6 ℥; comp. spirit lavender, 2 ℥; water, 4 pints. M. Macerate for two weeks and filter. Dose: 1 fl. dr. to 1 fl. oz. half an hour after meals for costiveness.—*American Druggist.*

Internal Obstruction of the Bowels.

BY A. B. ATHERTON, M. D., L. R. C. P. AND S. ED., TORONTO.

AUGUST 12, 1883.—G. L., male, æt. 25. Always healthy. Never laid up by illness in his life. Ate some green peas at yesterday noon, and a quantity of ham in the evening. Was seized with violent pain in the abdomen at 1 A. M. A free movement of the bowels took place at 3 A. M. Pain continued, and vomiting then also began. Thirty drops of laudanum were administered by a friend, but with little relief. Was visited by me at 8 A. M., when I gave ⅓ gr. of morphine hypodermically. This kept the patient pretty easy till noon, when half an ounce of castor oil, with 30 drops of laudanum, were taken. At 5 P. M. the pain became so severe again that I repeated the morphine as before.

Aug. 13, 8:30 A. M.—Pain returned early this morning. Vomiting is frequent and copious, and no motion of the bowels has occurred since yesterday morning; morphine repeated, also half a drachm of spirits of turpentine in warm soap and water, administered in the form of an enema; to be followed in half an hour, if no action of the bowels, by a quart of warm water. Turpentine stupes externally.

8 P. M.—Free vomiting during the day, though only two or three cups of tea have been swallowed. Vomited matters are of a sour taste and smell, and also very bitter. No flatus has passed per anum since the attack began; neither has any of the enemata come away. Pulse, 104; temp. in mouth, 99.8°. Little or no abdominal distension. Pain and tenderness are greatest in the epigastric region. Morphine repeated in the arm. Also ordered a pill of ⅓ gr. of morphine and ½ gr. of ext. belladonna, to be given pro re nata. To have only iced milk and lime water in small quantities.

Aug. 14, 10 A. M.—Rested pretty fairly till 3 A. M., when the pain and vomiting returned. Has taken six of the pills since that hour, but probably several of them were vomited. The amount of greenish sour fluid ejected is still large, though little ingesta is taken. The urine has been very scanty from the first. Pulse, 96; temp., 99.2°. Face looks somewhat pinched. Hypodermic injection of morphine repeated. To suck bits of ice and swallow little else.

12:30 P. M.—Comfortable since morning, and not much vomiting. About three quarts of warm water administered very slowly as an enema through a long tube. No great amount of force was required to inject it, but the patient complained of a good deal of pain at the last, and I then desisted. He then got up and passed about two quarts in gushes. Little or nothing came away in the water. Ordered a suppository containing ¾ gr. of morphine and 1 gr. of ext. belladonna pro re nata to relieve pain.

8:30 P. M.—Vomiting continues. Used one suppository about half an hour ago. No further motion from the bowels. Abdomen seems to be growing flatter, especially from umbilicus downward. Pulse, 108; temp., 99.5°.

Aug. 15, 9 A. M.—Rested fairly well without any more opiate. Vomiting not quite so frequent, but the fluid thrown up has an intestinal odor. Had some hiccough during the night. Feels less pain; no improvement in facial expression. Pulse, 96, small and compressible; temp. in mouth, 97.5°; in rectum, 99°.

11 A. M.—Dr. Coburn, of Fredericton, saw the patient with me, and agreed in the opinion that there must be some intestinal obstruction. As, however, he had been rather freer from pain and vomiting, and some flatus had passed per anum for the first time this morning, it was deemed advisable to wait a few hours before operating. Pulse, 120; temp. in mouth, 99.8°; in rectum, 101. Extremities rather cool.

8 P. M.—Vomiting of intestinal; smelling matter continues. Pulse, 128, feeble; temp. as before. Mind has wandered at times during the day.

Operation (by lamplight).—Chloroform, followed by ether. Assisted by Dr. Coburn and Messrs. Owens and Sury, my medical students. The anæsthetics were taken badly. The catheter was passed, but no urine found. A longitudinal incision was made, commencing to the left of the umbilicus, and extending down about four inches. On cutting through the peritoneum, congested small intestine presented itself. On examination, two loops were found connected closely together by a very short band of adhesion, which dragged upon one part so as to constrict very considerably the gut. I could scarcely insert the tip of the finger beneath this band and adjoining loops of bowel. A catgut ligature was thrown around the adhesion and tied. There was no room for a second one, and I therefore divided the band with the scissors. No bleeding followed. As only a few inches of the intestine seen was much distended, there was no protrusion; and I readily brought the abdominal wound together with deep silver sutures and superficial catgut ones. Carbolic spray and other antiseptic precautions were used throughout.

10:30 P. M.—The patient has been very restless and pugnacious since coming out of the ether, and it was with difficulty he could be kept in bed. Has swallowed a few teaspoonfuls of iced milk, and has had an ounce of brandy in a cup of warm milk and water by enema. No vomiting since the operation, and flatus has passed several times per anum. Extremities are pretty cold. Pulse, 132, very feeble. Hot irons put to feet. One-fourth gr. morphine subcutaneously, to help keep the patient quiet.

Aug. 16, 8:30 A. M.—Slept four or five hours altogether during the night. Took some brandy and milk by the mouth, and had an enema of the same at 3 A. M. No vomiting; no motion of the bowels. Wildly delirious at times. Extremities cold. Little or no pulsation at wrists. He died at 10:30 A. M.

Autopsy, 11 A. M.—The point at which the ligature was applied was found to be only four feet from the pyloric end of the stomach. A considerable thickening of the peritoneal coat ran in a somewhat band-like form around the gut from the ligatured adhesion. Along this line the bowel presented somewhat of a wet leather appearance, but there was no ulceration of the mucous coat at the part, and the calibre of the intestine was not very greatly diminished either here or elsewhere. Stomach and upper four feet of bowel dilated; below this the latter was empty and contracted. Two of the mesenteric glands were calcereous.—*Canada Lancet.*

Trephining the Skull for a Growth in the Brain.*

In our London letter is the fullest account that we have yet seen of the case of Dr. Hughes Bennett, in which, after a diagnosis of a localized lesion in the cerebral convolutions, Mr. Godlee trephined and removed a neoplasm. Strangely enough, as it appears to us, this case was immediately published in the *London Times* as a triumph of vivisection, the sole credit being awarded to Ferrier's experiments for the successful operation. A glowing picture was given of the salvation from certain death of the patient, and a contrast drawn between the restoration to health and usefulness of the bread-winner of the family and the value of sundry monkeys and dogs, which had been sacrificed in order that the profession might gain the necessary knowledge to treat the case. Unfortunately for this argument, as it happened, the patient perished with meningitis, and most distinctly was not cured by the operation. In an editorial, "On the Justification of Vivisection," in the *British Medical Journal*, this case is discussed at length, but the impression given by the description is, that the diagnosis and operation were solely directed by the interpretation of the symptoms furnished by physiological experiment. "Guided by these symptoms," are the words, "a tumor was diagnosed in the cortex, in the upper part of the fissure of Rolando."

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* We have selected the above editorial article from the *Medical Times*, of Philadelphia, for the reason that the case mentioned is described in the *London Times* as a triumph of vivisection. We have seen it published as such in the newspapers of this country. —Ed Med. News.

The account given by our highly esteemed London correspondent, however, throws more light upon the case, and communicates features which had not previously been published, so far as we are aware. There was a history of a blow upon the right side of the head (it will be remembered that this is the common history of glioma), followed by excruciating pain over the vertex, with a spot of localized tenderness on deep pressure in the upper parietal region, a little to the right of the middle line, the symptoms of twitching of the muscles of the left side of the face, and convulsive seizures in the left arm and leg, followed by monoplegia of the arm and paresis of the leg, with attacks of vomiting, cerebral in character. Upon such a basis, modern surgery could make, and undoubtedly did make, the diagnosis of a small tumor, involving the cortex in the position indicated, with sufficient certainty to warrant the operation. Thus far the credit might certainly be divided between clinical surgery and Hughlings Jackson, to whom we owe much of our knowledge of localized discharging lesions in the brain. Take away the history of the case, the localized tenderness and pain, the Jacksonian epilepsy, and leave only the symptoms of monoplegia and paresis, and it would be a bold surgeon who should operate in a case with nothing more to guide him than the information afforded by the study of motor centers in the brain, made by Hitzig and Ferrier, especially if he were at all familiar with the writings of Brown-Séquard upon the same subject.

This is not written to decry the value of vivisection (it can not be denied that cerebral localization aided in the diagnosis), but to discourage what appears to be a tendency to exaggerate the value of physiological experimentation at the expense of clinical medicine and surgery. Vivisection owes its justification to its ability to contribute to knowledge, and not to the result of attempts to utilize that knowledge in medical practice, attempts which may be premature and injudicious. Dr. Klein was certainly right in taking the position before the Royal Commission that vivisection is to be practiced with a view of adding to our stock of knowledge, and not with any idea of its immediate practical application to medicine. In this view those engaged in original investigations generally concur.

Hydrochlorate of Cocaine in Obstetrical and Gynecological Practice.

THE remarkable results following the use of the hydrochlorate of cocaine in ophthalmic surgery, have suggested the employment of this drug in a wide range of surgical conditions. Solutions of cocaine have been used in minor operations with varying degrees of success. It has been shown by numerous clinical facts that the sensibility of mucous and cutaneous surfaces may be entirely blunted by the application of solutions of two and four per cent. strength. The amount of insensibility is influenced by the strength of the solution and the number of applications. When employed topically, insensibility does not seem to extend into the subcutaneous or submucous tissues. This fact has limited its anæsthetic use chiefly to minor surgical operations. Solutions of the drug have been injected hypodermically into the deeper tissues, with the effect of diminishing insensibility to a greater or less degree, according to the nature of the tissues into which it was introduced. Abundant testimony is offered to show that the drug is not only a "boon" to the oculist, but that it will render valuable services to the surgeon in general practice, and to the obstetrician and gynecologist.

The use of cocaine in obstetrical practice has been chiefly limited to the vaginal mucous membrane, during the second stage of labor. A number of reports have been made of its application to the vagina and vulva, with the result of diminishing the sensibility of these parts, and thereby lessening the tearing and lancinating pains occasioned by the passage of the child's head. It has been employed successfully during the operation for the restoration of the perineum immediately following labor. An aggravated case of vomiting of pregnancy, due to an eroded cervix, has been reported as relieved by the application of the cocaine to the eroded surface.

The writer has employed a four per cent. solution in a case of laceration of the perineum, in which denudation of the surfaces of the wound was required, preparatory to the closure of the perineal body. No pain was experienced during the pairing of the tissues, though some pain was experienced during the introduction of the sutures. The patient bore the latter pain comparatively well.

The cocaine solution has been used in performing Emmet's operation, by several operators, with fairly good results. It was found necessary to make frequent applications during the passage of the needles through the deeper tissues. A case of vesico-vaginal fistula has been reported as having been performed after repeated paintings of the surface with a four per cent. solution.

Dujardin Beaumets has reported a case of vaginismus, treated with cocaine, with good effect. This authority pronounces, as the result of numerous observations, cocaine hydrochlorate to be the best therapeutic agent in this affection, when due to inflammation and ulceration of the vulvar orifice. A case of exaggerated pruritus vulvæ, in which the usual remedies had failed, is reported as immediately relieved by the application of a four per cent. solution by Dr. Sarah J. McNutt, of New York City, (*N. Y. Med. Record,* January 3d, 1885, p. 123).

In dysmenorrhœa a four per cent. solution applied to the cervical canal has been followed with marked relief.

The writer has had occasion to employ a four per cent. solution with marked benefit, in the following condition: A patient with a very acutely retroflexed uterus of some years' standing, suffered with great hyperæsthesia of the entire uterine canal. The simple introduction of the uterine sound occasioned great distress, and produced nervous manifestations of a most unpleasant character. It was extremely difficult to induce the patient to submit to local treatment. Attempts to replace the uterus by posture and manipulations with the fingers were unvailing. A four per cent. solution was introduced into the uterine cavity, first, by the use of the syringe, and afterward by means of the applicator, wrapped with absorbent cotton and saturated with the solution. With two applications of the solution, at intervals of ten minutes, the sensibility was so diminished that Emmet's elevator was introduced, and the uterus restored to its proper axis, without the patient's knowledge of the fact.

These results suggest a wide range of conditions in which cocaine may be successfully employed in obstetrical and gynecological work. The numerous cases of hyperæsthesia of the female generative organs, whether due to neurotic or inflammatory conditions, will most probably yield to the local application of the cocaine solution, and thus admit of the use of instruments and applications which were deemed impractical without anæsthesia. We would suggest its trial where pain and distress are occasioned in the examination and treatment of highly nervous and sensitive patients.—*Maryland Medical Journal.*

Needless and Useless Coughing.

An exchange quotes the following from the *British Medical Journal:* There is in the world a great deal of what I am accustomed to call "needless, useless coughing." Where secretion takes place in the bronchial tubes, it must sooner or later be brought up; and for this purpose some "necessary" coughing must take place, or the patient will choke. But, both in organic diseases and in slight inflammatory or irritative affections of the air passages, there is often an immense amount of useless coughing—useless, that is, as regards bringing up any laryngeal or bronchial secretion, and far worse than useless, because it wears out the patient, prevents sleep, and moreover, increases the condition which gives rise to it, inasmuch as it lets the affected parts have no rest or peace. Now, the effects of opium are both local and general; and if in mucilage of acacia, or tragacanth, or in glycerine, or with a thickening solution of confection of dog-rose or honey, you give frequently from the one-fortieth to the one-twentieth of a grain of morphia, you not only give a marvelous amount of peace and comfort to your patient, but, where it is remediable, you tend also to cure the disease. A favorite formula of mine, varied according to circumstances, is:

℞ Acetate of morphine,	1½	grs.
Nitric Acid, dilute,	1½	drs.
Oxymel of squill,	6	"
Mucilage of acacia,	2½	oz.
Glycerine,	2	drs.
Syrup of red poppy,	2	oz.

Cinnamon or rose water sufficient to make the whole equal six ounces.

M. To take one or two teaspoonfuls five, six or seven times in the twenty-four hours.

The coughing in pertussis may be similarly relieved.—*Weekly Med. Review.*

Microscopy.

BACTERIA IN THE DAIRY.—In response to the vote of thanks tendered him for his lecture in the Health Exhibition of London, Mr. Earnest Hart said: "Sir John Lister had proved that the whole question of the souring of milk depended on the bacterium lactis, and that the butyric ferment was due to another kind of bacteria. The milk industry opened up a great field for investigations of this class; it was found that every variety of cheese was due to the influence of a particular kind of minute vegetable organism, which, by its mode of maturation, gave to each cheese its particular flavor and quality; so much so, that one kind of cheese could be made only in one cellar, and another kind in a cellar perhaps 300 yards off, and in none of the intervening cellars could the same kind be made. The last time M. Pasteur was in England with him, he told him that his greatest desire would be, if he had some years to spare, to spend them in the laboratory of a dairy, working out the relation of germs to the milk and cheese industry."

Microbes, Bacilli, Etc.

Apropos of preparations which had been sent to him by various individuals who claimed that they exhibited the comma bacillus, Koch writes, "Neither I nor other microscopists were able to find in them the least trace of anything which could be taken for a bacillus!" which goes to show that everybody can not go to Corinth, and we must be on our guard against mistaking a lightning-bug for a lantern.

Switching off from the subject momentarily, Dr. Pelletan proceeds to pay his devoirs to the yellow fever microbe, but soon returns to another phase of the comma cholera bacillus question—the foolhardy experiment of Dr. Bochefontaine, to which allusion has already been made in this department of the *Journal*. It was, as our readers will probably recollect, the swallowing of a lot of pills made of the fluid excrementitious dejecta of a woman in the clinic of Dr. Vulpian, who had died of cholera. This fluid "contained a prodigious number of vibrionidæ of all kinds and descriptions, among which, however, predominated in point of numbers, a kind of very short bacterium, which crowded and whirled about the field of the microscope with a rapidity of motion which made it difficult for the eye to follow them. In the midst of this bacteridial mob one could easily recognize the 'comma' and 'circumflex accent' bacillus. This fluid, injected under the skin of several guinea pigs in the laboratory killed them in a few hours. M. Bochefontaine, however, beyond a little fever, nausea, convulsive movement of the legs, dysuria, loss of appetite and constipation, experienced no bad effect, and in 24 hours he was all right again. Five days later, and when entirely recovered from his disgusting and nauseous dose, he found that his dejecta contained qualities of bacteria somewhat larger than ordinary, and generally immobile, and at the same time comma bacilli in even greater numbers and extremely lively."

"All of which goes to prove," says Dr. Pelletan, "that the ingestion of the matter of choleraic stools, full of bacilli, including comma bacillus and other kinds, may cause some perturbation of the system and nausea—but not cholera."

"But the Parisians, who laugh at everything, even the most grave and serious, immediately found a way of popularizing the name of Bochefontaine—the man who had taken this transcendent means to restore their confidence in the midst of an epidemic."

"It will be remembered that when, some months ago, M. Pasteur refrained from going to Toulon, where his duty to humanity and to France alike demanded his presence, a notable caricature appeared, at which the Parisians enjoyed a hearty laugh—a caricature graphically illustrating the extreme circumspection of the celebrated *Chatelain de Villeneuve-l'Etang* (Pasteur). As soon as the experiment with these famous pills became known, another caricature made its appearance, at which everybody laughed also—and surely M. Bochefontaine had a better right to laugh than any and everybody else. The cartoon represents this "*medicin epatant*" as squatted beneath a sheltering wall, his trowsers down, and while he is taking into his mouth a mess all smoking hot, he is returning *per viam naturalem* a bunch of violets."

"Now if you believe that this naturalistic caricature which celebrates the happy temerity of Dr. Bochefontaine in a manner as droll as it is naughty," continues Dr. Pelletan—(American readers would say as ridiculous as it is filthy) "was of no service, you must undeceive yourselves. I heard a workman who was standing before one of these colored cartoons remark, 'Ah! cheese it about cholera! If one of those doctor fellows can eat the excrement of a choleraic patient, I think we've got nothing to fear!'—*That* is how M. Bochfontaine has, aside from the scientific bearings of his experience, rendered a great public service which has been popularized by the caricature. He 'reassured the populace' far more effectively than all the hygienic committees, councils of salubrity, boards of health and other official commissions put together."

And now, begging pardon of our readers for this diversion into the domain of M. Zòla, I will refer to a few more theories concerning cholera (and still they increase at the rate of a dozen a minute) the most notable of which is that of Dr. Maurin, who refers the cholera to a micrococcus, and that of Prof. Hallier, of Jena, who attributes the true Asiatic cholera to the spores of the *urocystis oryzae*, a fungus of rice; the cholera nostras to those of *tilletia caries*, a fungus of wheat, and choleraic diarrhœa to *pencillium crustaceum*.

THE GERM THEORY.—In concluding his review, Dr. Pelletan closes with the following not very optimistic view of the present status of the "*theorie microbienne.*" "It has produced and will yet produce a vast deal of research; it has caused and will yet cause an immense amount of nonsense; but it has created an entirely new department or branch of biology. The life history of these minute organisms, their diverse modes of development, their growth in various media, and particularly upon solid matters, are excessively interesting, curious and instructive. Looked at from this point of view, I repeat the microbian theory has been of vast service to the science of biology—but as to medicine and it sublime end and aim, the healing of the sick, up to the present time it has been absolutely without result, and it will probably remain so for a long time to come."—*St. Louis Med. and Surg. Journal.*

Gleanings.

THE TREATMENT OF GASTRODYNIA.—The following instructive case is reported by Dr. John W. Martin, in the *Medical Press.*

Miss R., æt. 30, came under my care October 3, 1884, suffering from pain in the stomach after meals, and the consequent dread of and loss of desire for food. When seen she looked quite worn and thin; complexion sallow; lips and gums anæmic; tongue whitish and lightly furred; bowels constipated. She felt a daily increasing sense of weakness and inability to attend to her duties. Physical examination yielded negative results as regards the condition of the various organs. The case seemed one of dyspepsia consequent upon anæmia. The uterine functions were, with the exception of paleness of the menstrual discharge, normal.

I at first ordered bismuth, soda and tr. nux vom. mixture with chloroform water; and calomel, colocynth, hyoscyamus pills to regulate the bowels. This giving no relief, I changed to pills of reduced iron and extract of nux vomica with meals, and as a laxative, a mixture of sulph. mag. and mag. carb., with peppermint water. Again no relief being experienced, I placed her upon the following prescription:

℞	Sodæ bicarb., ...	ʒ iss.
	Tr. nucis vom., ...	*M*xl.
	Liq. morph., ...	ʒj.
	Sp. am. aromat., ...	ʒ iss.
	Syrupi zingib., ...	℥j
	Aquæ menth. pip. ad., . . .	℥viij.

M. ℥j. to be taken four times a day.

The relief was immediate, and, so far, has proved permanent. Pain is now rarely felt, and only after indiscretions as to food. Relish for her meals has returned. She is now taking the reduced iron and extract of nux vomica pills with meals, and finds decided benefit from them. The bowels are regular, the tongue clean, and her complexion and general appearance much improved.

I am inclined to think the small dose of opiate was just the one thing wanting in my previous treatment, to help the lame dog over the stile.

Treatment of Syphilitic Lesions.—Dr. Seguin published an article in the October number of the *Archives of Medicine*, on the use of iodide of potassium in large doses for the relief of the later lesions of syphilis, particularly of the nervous system. He dwells at length on the authorities regarding the dosage of the iodides. Dr. Seguin states—and states correctly, too—that text-books are generally silent on the use of iodides in extremely large doses. He also claims that the practice originated in America. Dr. William H. Van Buren was the first to give potassium iodide in very large doses, and as the results of experience showed its advantage, it has been used by others in the same way. Drs. William H. Draper, R. W. Taylor, W. A. Hammond, and others, have taught the use of iodide of potassium in large doses for many years, but, as a rule, it has not been so used, until within a short time. All cases of syphilis do not require very heroic treatment. When there is no immediate danger, doses of from twenty to thirty grains, three times a day, may be given to commence with. In the meantime, the effects can be watched, as a few individuals can not tolerate large doses. In syphilitic manifestations of the nervous system, such as convulsions, hemiplegia, coma, etc., it should be given in the very largest doses at once. Dr. Seguin recommends it in such cases in doses varying from two-and-a-half to ten drachms in twenty-four hours; he has given it before meals, largely diluted. We are pleased with the forcible manner in which Dr. Seguin has drawn attention to this important matter of treating syphilis in the tertiary stage. We have had considerable experience with iodide of potassium in the treatment of syphilis, and have given large doses of the iodides, but have never pushed the remedy to the extent that Dr. Seguin advises. We have usually administered it after meals and not before, as advised by Dr. Seguin. We have never produced iodism to any extent, nor have we observed any gastro-intestinal irritation. In some cases the addition of small doses of mercury may be made with advantage in the treatment.

Is There a Form-Blindness?—A daily paper quotes a prominent artist of this city as saying: "I have during many years of art teaching, and in various other ways, encountered a peculiar form of visual defect which is akin to color-blindness. Instead, however, of being insensible to a difference in color, these people appear to have lost, if indeed they have ever possessed, the power of perceiving clearly defined forms—form-blindness, in other words. I have sometimes placed objects in the shape of hexagons, or octagons, or decagons, or even so common a shape as a pentagon, or a five-pointed star, before these pupils as a test, and almost invariably they were unable to distinguish one form from another, even when with careful distinction the differences were explained to them. This fact is a curious one, and I do not know whether it has ever been treated scientifically or not."

Color-sense depends upon the integrity of the retina, but the forms of objects are dependent, speaking generally, upon the integrity of the refractive media. The defects above referred to are very likely due to astigmatism. There is, however, a disease of the retina called micropsia, in which objects seem smaller than they really are. And there is another retinal disease, described by Förster, and called metamorphopsia, in which horizontal lines looked crooked and curved to the patient.—*Med. Record.*

An Ascaris Lumbricoides Extracted from the Umbilicus.—Dr. Donald Macphail presented the specimen and gave the history of a case of this character before the Glasgow Pathological and Clinical Society (*Glasgow Medical Journal*). The patient, a boy four years of age, enjoyed good health until about five months before (he had been successfully treated for thread-worms), when he became listless, cross and restless, and suffered from severe diarrhœa; belly became swollen and tender; began to emaciate, and had a slight attack of scarlet fever. Belly protuberant and tense; superficial veins much enlarged. Could bear firm palpation without much pain. Percussion dull and tympanitic, a suspicion of fluctuation at the most dependent parts of the abdomen. Weak, emaciated, apathetic, took but little food, occasional attacks of very severe diarrhœa, profuse night sweats; pulse quick, small and thready, but regular;

respiration easy. There supervened upon these symptoms a slight discharge, which, in time, became abundant, of thin, watery pus from the umbilicus, with very offensive but not fæcal odor. This discharge caused painful excoriation of the surrounding skin. Later he suffered considerable pain and difficulty in micturition, especially at the beginning of the act, which produced marked retraction of the testicles. Between the umbilicus and pubes there developed a diffuse, slightly elevated swelling, which was very tender to the touch, but without any redness of the skin. On the day of the discharge of the lumbricoid he became apparently moribund, with, for the first time, considerable œdema of the feet and legs. That evening he suddenly called out that his "belly was dirty." On examination there was found protruding from the umbilicus about two inches of a round worm, wriggling actively. Without difficulty his mother drew out the worm, which was about nine inches long. From that time there was rapid improvement.

In the discussion which followed, Mr. Maylard thought that a very possible explanation of the condition was a potency of the vitello-intestinal duct. It is known that a communication sometimes exists between the umbilicus and the ileum through a permanency of this fœtal connection, and it is not unlikely that the worm may have thus made its way to the umbilicus, excited inflammation, and then escaped.

PARENCHYMATOUS INJECTIONS OF TURPENTINE IN MALIGNANT GROWTHS.—The *Maryland Med. Jour.* quotes the *Centralblatt f. Chirurgie* as follows:

From a series of injections of turpentine into the interior of malignant growths, in order to influence their development, Dr. Vogt reports (Communications from the Chirurgical Clinic at Griefswald) as follows:

The first case was a return after extirpation of a carcinomatous breast, which showed itself as a rapidly growing tumor pressing forward from the anterior mediastinum. One-half of a Provaz syringeful of a solution of alcohol and oil of turpentine was injected. In a few days there was a severe pain, fever, and erysipelatous redness of the breast. After forty-eight hours the temperature declined, but the general malaise continued several days longer; the tumor had visibly contracted. In ten days a second injection was made, with the same success at first, but afterward an abscess formed. Two more injections were made during the next few weeks. In the course of two months a gradual shrinkage of the tumor took place, which then remained as a decidedly hard tumor, with no abnormal heat. The patient was then discharged.

The second case was one of multiple sarcoma, which was treated in the same way, with the same results, including the abscess. In the course of five weeks, after repeated injections, the tumor had almost disappeared.

THE RELATION OF CERTAIN DISEASES OF THE EYE TO GOUT.—Mr. Hutchinson, of London, believes that irritis, relapsing cyclitis, optic neuritis, glaucoma, and hemorrhagic retinitis may all, in some cases, be due to gout. He also attributes to the same cause a condition which he denominates "hot eye." He has observed this affection in those who suffer from "quiet" gout: *i.e.*, gout in which acute paroxysms never occur. Many gouty persons also suffer from ocular shooting pains, the nature of which they well understand themselves. Mr. Hutchinson also remarks that many cases of irritable hyperæsthetic and easily tired eyes in young persons are in association with inherited gout. Slight hypermetropia may be found, but glasses do no good in such cases, and only increase the irritability. Referring to so-called "gouty deposits" in the eye, Mr. Hutchinson says, the nearest approach to proof of gout-deposit is the occurrence of what are known as "transverse calcareous bands" in the cornea. No one has, however, yet proved that the salt deposited is that of gout. It is usually calcareous, and there is little or no evidence that urate of soda is ever deposited in the eye. In conclusion, Mr. Hutchinson disclaims a wish to see "gout in everything," but he maintains that the gouty constitution exists, is very common in England, potent in causing disease, and remarkably hereditary.

DRESSINGS FOR ULCERS OF THE LEG.—B. F. Curtis, M.D., states that in the out-patient department of the Chambers Street Hospital, they have had good results from the treatment of ulcers of the leg with Lister's boric acid dressing, applied with a crinoline bandage.

The leg and foot are thoroughly washed with a one-to-forty carbolic acid or one-to one-thousand corrosive sublimate solution, and the ulcer itself is washed with a saturated solution of boric acid. Over the ulcer is put a piece of thin gutta-percha tissue, which has been soaking in the boric acid solution, large enough to extend about one-fourth of an inch beyond its edges on all sides. The leg is wiped dry. Sufficient borated or salicylated cotton to take up the discharge is laid over the ulcer, and the rest of the leg from ankle to knee is wrapped with a half inch layer of cotton batting. An ordinary bandage is applied to the foot, and from the ankle to the knee is applied a crinoline bandage, which has been squeezed quite dry after soaking for five minutes in water. Care must be taken to have the cotton project beyond the upper and lower edges, as they may chafe the skin when dry and stiff. The crinoline will dry in a half hour; but if time is important, an ordinary bandage may be applied over the crinoline and the patient be dismissed at once.—*New York Medical Journal.*

A Surgeon Inoculated while Operating.—The sad death of Dr. Atkinson, of Brooklyn, prompts Dr. John D. Mulhane, of Steubenville, O., to write us an unfortunate personal experience of his own. On March 10, 1884, Dr. Mulhane removed from the inferior carotid triangle of a woman a tumor of character unknown. During the operation and while holding the tumor, the needle point plunged into his middle finger, giving an opportunity for a pure inoculation of the tumor. Three days after a pustule appeared, and five days later the doctor had a temperature of 104° F., and was delirious. He put himself upon carbolic acid, and took seven minims daily for five days. The glands in the axilla became swollen, the wrist-joint suppurated and had to be opened. In August Dr. M. had severe boils and carbuncles. At date of writing Dr. Mulhane states that the axillary glands are enlarged, and a very suspicious eruption is appearing on his body. He fears he was inoculated with a specific virus. We should say, however, that our correspondent is a little "overanxious," and has had only a septic infection.

Cannabis Indica as a Local Anæsthetic.—A. Aaronson writes, in the *British Journal of Dental Science*, that tincture of cannabis indica as a local anæsthetic is perfectly satisfactory. He has extracted with its aid as many as twenty-two teeth and stumps at one sitting. His plan is to dilute the tincture some three to five times, according to the probable duration of the operation. The diluted tincture is then applied in cotton wool to cavities, if such exist, and also about the gums of the affected teeth. The beaks of the extracting forceps are also, after being warmed, dipped in the diluted tincture. In cold weather, it is wise to dilute the cannabis indica with warm water. His patients acknowledge the immunity from pain they enjoyed during the extraction, and all expressed surprise and pleasure at the simplicity of the performance. The ordinary methods of anæsthetizing are subject to danger; this is as effectual, and is devoid of the possibility of harm.—*Chemist and Druggist.*

A NEW METHOD OF REDUCING THE TEMPERATURE OF THE BODY.—Stephan, in the *Allg. Med. Cent. Zeitung*, publishes a new method of reducing the body temperature by means of the ice-bags, but only the manner of applying them is new. The place he selects is the neck, which he completely surrounds; also the supra-clavicular region is covered. He argues in the following manner: A large number of large blood vessels lie quite superficial in this region, so that this necessarily must be a very suitable place to cool the blood as it passes up and down. His experiments and clinical observations warrant him in saying that in the course of three hours he can reduce the temperature one to one and one-half degrees. In cases of typhus fever, treated in this manner, dangerous symptoms from too great a degree of heat never were present; besides the cold applied to the neck seemed to have a good effect on the head. The principle of the above proposition is certainly not wrong; it is easily applied, and, according to the latest appliances, can be readily regulated.

GANGRENE FROM A HYPODERMIC INJECTION OF QUININE.—Dr. F. Tipton, of Selma, Ala., has had a bitter experience with quinine. He had a patient suffering with a violent form of quotidian ague. Nothing would stay on the stomach, or in the rectum, so he injected into the outer aspect of the leg ten grains of quinine dissolved in water with half a grain of tartaric acid to each grain of quinine. After three days, the leg began to swell and became red; then acute spreading gangrene set in. For several days life and limb were threatened, but finally a line of demarcation appeared. The gangrenous area covered a space equal to that of both hands. Dr. Tipton writes that he had seen the injection, which he used, administered in about one hundred cases, with no injury at all. In this case the patient showed a tendency to suppuration, even when he received slight injuries, or scratches. Our correspondent is very positive that he will not again run the risk of any such accident as the above.

COCAINE AND ITS USE IN AMERICA; "*The Record" the first in the field.*—A London correspondent writes: Cocaine has been in use here for some little time now, and with satisfactory results, as I can testify from personal experience. Several operations—especially ophthalmic—have been performed by its aid, without employing general anæsthesia. Our journals, however, are much behind *The Medical Record*, in which I have recently observed with interest the reports of several American experimenters with this new agent. *The Lancet* of this week contains the first communication on the subject by English observers. I note, though, that one of the articles is by an American ophthalmologist. One of our writers calls attention to the fact that Sir Robert Christison wished to call the drug cuca, and urges that cucain would be a preferable term for the alkaloid.

SAVE THE FINGERS.—Dr. William D. Ronaldson, of Philadelphia, writing to us on the subject of conservative surgery, reports two cases which show it is often better not to yield to the impulse to cut off a bad-looking finger. A. B——, a brakeman on a railroad train, had his finger caught between the bumpers of the cars while endeavoring to couple them. The nail and flesh were torn completely off, leaving the distal extremity of the bone exposed. The injury was of such a nature that amputation of the ungual phalanx would have been permissible, but having cleansed the wound thoroughly with tepid water, a dressing of carbolized oil (1 to 15) and vaseline was applied. The finger healed in three weeks, and, except for the loss of the nail, was as serviceable as before. The second case was similar to this one in treatment and results.

DR. F. H. BOSWORTH reports, in the *Medical Record*, that on applying a two per cent. solution of cocaine to the nasal passages, the venous sinuses below the mucous membrane became, within twenty or thirty seconds, so rigidly contracted as to expel all the blood contained in them, and to cause the membrane to cling closely to the bony structure which then becomes sharply outlined. He has used the drug in hypertrophy of the nasal mucous membrane (*nasal* *catarrh*), acute *coryza* and in operations for nasal *polypus*. In each case the venous congestion, or turgescence, was so thoroughly kept down that all discomfort was removed, and in the case of polypi not only the recognition and removal of the growth became quite easy, but also turned out a bloodless operation.

MEDICAL ADVICE BY TELEPHONE.—*Husband*—My wife has a severe pain in the back of her neck, and complains of a sort of sourness in the stomach.

Physician—She has malarial colic.

Husband—What shall I do for her?

[The girl at the "central" switches off to a machinist talking to a saw-mill man].

Machinist to Husband—I think she is covered with scales inside, about an inch thick. Let her cool down during the night, and before she fires up in the morning, take a hammer and pound her thoroughly all over, and then take a hose and hitch it to a fire-plug, and wash her out.

Husband had no further need of this doctor.—*Leonard's Medical Journal.*

TWINS BORN FOUR DAYS APART.—Dr. James Douglas, of Morristown, N. J., writes: "A very unusual occurrence in the birth of twins has happened lately in my practice, one of the twins, a girl, being born at half past nine on Friday night, January 2, 1885, (breech presentation), and the other, a boy, on the following Tuesday afternoon at twenty minutes to three (head presentation), a difference of three days, seventeen hours and ten minutes. They are eight months' children, the girl weighing four and one-half pounds, the boy six pounds. There was only one placenta. The mother is a healthy young woman twenty-two years of age."

POISONING BY ACONITE.—A report was lately circulated in French medical journals regarding the fatal poisoning of a person with aconite through the mistake of a druggist. Captain M. J. Farrell, of New Orleans, died the other day from a dose of aconite given through a druggist's mistake. A man in Minneapolis has escaped death from a similar cause almost by accident. A druggist there put up by mistake an ounce of tincture of aconite in a prescription brought to his store by a young man whose residence was unknown.

The whole of the medicine was taken, but fortunately without evil results.

Making a patient keep his eyes closed while recovering from the ether is a great aid in preventing sickness; for, owing to the patient feeling giddy, any object at which he looks appears to sway from side to side; and this, by itself, is sometimes enough to produce a feeling akin to sea-sickness, even in those who have not been anæsthetized. —*Med. and Surg. Reporter.*

Book Notices.

A System of Practical Medicine: By American authors. Edited by William Pepper, M.D., LL.D., Provost and Professor of the Theory and Practice and of Clinical Medicine in the University of Pennsylvania, etc. Assisted by Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Vol. I.—Pathology and General Diseases. Large 8vo. Pp. 1,094. Philadelphia: Lea Bros. & Co. Cincinnati: Horace Stacy. 1885.

We announced in the last number of the Medical News the publication of the first volume of this work, but in consequence of want of space we were able to give only a brief notice of it. As we have stated, it will consist of five volumes, of about 1,000 pages each.

The work has been undertaken in the belief that, by obtaining the coöperation of a considerable number of physicians of acknowledged authority, who should treat subjects selected by themselves, there could be secured an amount of practical information and teaching not otherwise accessible. It was determined to restrict the selection of authors to those of this country—including Canada—not from any want of recognition of the importance of the studies of certain special subjects by European investigators, but because it was felt that the proper time had arrived for the presentation of the whole field of medicine as it is actually taught and practiced by its best representatives in America.

Among the diseases treated in this, the first volume, are: Simple Continued Fever, Typhus and Typhoid Fevers, Relapsing Fever, Variola, Scarlet Fever, Rubeola, Malarial Fevers, Erysipelas, Diphtheria, Cholera, Cerebro-Spinal

Meningitis, Puerperal Fever, etc. Nearly two hundred pages of the volume are devoted to the consideration of General Pathology, General Etiology, Symptomatology and Diagnosis.

As has been stated, Prof. Wm. Pepper, M.D., LL.D., is the editor of the work, assisted by Louis Starr, M.D., but the treatment of the various subjects has been done by between fifty and a hundred different medical writers of acknowledged authority, each writer devoting himself to the elucidation of such diseases and their treatment with which he was most familiar, or most competent from observation and experience to write upon. There are twenty-one contributors to the first volume, among whom are Drs. A. Jacobi, of New York; John Billings, U. S. A.; S. Bemiss, New Orleans; H. R. Fitz, Boston; Henry Hartshorne, Philadelphia; Wm. T. Lusk, New York; W. A. Hardaway, St. Louis; Alfred Stille, Philadelphia; B. A. Watson, Jersey City; J. Lewis Smith, New York, etc.

Every physician of this country should have this very comprehensive work, being, as it is, an exclusively American work, written by physicians of this country, and familiar with the peculiarities of its diseases. While we are disposed to recognize the value of the contributions to medical science of European medical men, yet it must be admitted that those who have practiced among the diseases of this country, and are acquainted with their characteristics, as modified by climate, soil, employments and habits of the people, etc., are better qualified to give instructions in regard to the treatment of them. Differing from the ordinary Practices of Medicine in that the various diseases are not all treated by one writer, but many have addressed themselves to the work—each writer having had selected for him such affections for his elucidation in regard to which he is an acknowledged authority—it must certainly be regarded as especially valuable.

The Messrs. Lea Brothers & Co. deserve great credit for the handsome manner in which the first volume has been issued.

A Practical Treatise on the Diseases of the Ear, Including a Sketch of Aural Anatomy and Physiology. By D. B. St. John Roosa, M.D., LL.D., Professor of Diseases of the Eye and Ear in the New York

Post-Graduate Medical School, Surgeon to the Manhattan Eye and Ear Hospital, etc. Sixth Edition, Revised and Enlarged. 8vo. Pp. 718. New York: William Wood & Co. Cincinnati: R. Clarke & Co.

For a work to pass through six editions in less than twelve years is pretty strong evidence that it is held in high esteem by the profession. The author could desire no more satisfactory proof that his labor has been acceptable. Such a work needs no commendation. Endorsed by the profession, there can be no doubt in regard to its merits.

The author stated in the preface to the first edition, in 1873, that a few years before the practice of otology in this country was almost exclusively confined to charlatans; but, at the time of his writing, it was cultivated by a class of men who are the equals of any in the profession. While there is no doubt that there are medical men at the present time practicing it, who are of the highest standing, yet there is certainly a woeful amount of ignorance even now by general practitioners with respect to diseases of the ear; and too many suffering from them, failing to obtain relief from the regular practitioner, fall into the hands of a quack. If, however, this very excellent work of Prof. Roosa would be secured and attentively studied by physicians generally, the result would be both creditable to them and profitable, and, at the same, diminish the victims of the charlatan.

In preparing the sixth edition the author has not only revised almost every page, but has added many pages. The original plan of the work has been preserved in the way of making a suitable text-book for the use of advanced students, of meeting the wants of the general practitioner, and of serving as a book of reference to the specialist, in which he may find something of interest and profit.

The larger part of the work is essentially a digest of the author's own experience in the treatment of diseases of the ear, now extending over more than twelve thousand cases, for which he has had the personal responsibility.

DOCTRINES OF THE CIRCULATION: A History of Physiological Opinion and Discovery in Regard to the Circulation of the Blood. By J. C. Dalton, M.D., Professor Emeritus of Physiology in the College of Physicians and Surgeons, New York, etc. 12mo. Pp. 296. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price, $2.00.

Intelligent physicians who are interested in the history of medicine, and love to trace the progress made from age to age in its development, will be very grateful to Professor Dalton for this work. Beginning with Aristotle, the doctrines held in regard to the circulation are presented, until the time of Harvey, by whom the real circulation was discovered. The views of Proxagoras are set forth; so, also, are those of the school of Alexandria; and those of Galen, etc.

We learn from the work that Fallopius held that the "elaboration of the vital spirits takes place in the left ventricle of the heart;" that the "vena arteriosa supplies the lungs with a finer and aereal texture;" the arteria venosa, carrying "fuliginous matter from the left ventricle to the lungs, and bringing air, already prepared in the lungs, to the heart for refrigeration." The blood of the right ventricle "is partly for generating afterward vital spirits in the left ventricle, and partly for the nourishment of the lungs, to which it is sent by the vena arterialis."

Professor Dalton very correctly says that the obscurities and misconceptions which existed in times past were real for the writers of that time, and would still exist had it not been for the successful work of our predecessors. The men, he says, were neither ignorant nor dull. They were conversant with everything then known in physiology. We will say, in addition, also, that many of them were men of great learning.

A MANUAL OF THE MEDICAL BOTANY OF NORTH AMERICA. By Lawrence Johnson, A.M., M.D., Lecturer on Medical Botany, Medical Department of the University of the City of New York, etc. 8vo. Pp. 300. New York: William Wood & Co. Cincinnati: R. Clarke & Co.

This volume constitutes the December number, 1884, of "*Wood's Library of Standard Medical Authors.*" It is a work which every physician who takes an interest in the vegetable remedies of this country will endeavor to have in his library. It is the only work of the kind with which we are acquainted. Although it is well known that this country has indigenous to it hundreds of vegetable productions of the most valuable remedial properties, yet comparatively little has been done in the way of developing a knowledge of them. There are no botanical products of any country that hold a higher position in the materia medica as remedies than the root of the May-apple (podophyllum), gelsemium, veratrum viride, lobelia, and many others, and there are probably others of equal merit which have not yet been brought to the attention of the profession.

The first part is devoted to the Elements of Botany, explaining the technical terms commonly employed in botanical descriptions, and the plan of classification in general use at the present day.

In the second part is presented a systematic arrangement and description of most of the medicinal species, indigenous and naturalized, which grow upon this continent.

Following the description of a species, is given its habitat, part used medicinally, constituents, preparations and an account of its medicinal properties and uses.

The work contains quite a number of very beautiful colored plates and very many wood-cuts.

THE BASIC PATHOLOGY AND SPECIFIC TREATMENT OF DIPHTHERIA, TYPHOID, ZYMOTIC, SEPTIC, SCORBUTIC AND PUTRESCENT DISEASES GENERALLY. By Geo. J. Zeigler, M.D., Late Physician to the Philadelphia Hospital, Member of the Philadelphia County Medical Society, etc. 12mo. Pp. 225. Philadelphia: Geo. J. Zeigler, M.D. Price, $2.00.

In noticing this work we do not propose to discuss its merits. Whatever they may be, our readers must examine and ascertain for themselves. We will mention, however, that the author undertakes to show "that all the varied and complex diseases classed as scorbutic, necræmic, typhoid, zymotic, septic, infectious, malarial, gangreneous, putrescent and allied affections, by whatever name designated, from the simplest to the most malignant, are dependent upon, or complicated with, one common basic, alkaline, pathogenic factor, mostly the volatile organic alkali—ammonia." He then proceeds to demonstrate, that for the successful treatment of these affections, "this primal morbific factor must be decomposed, neutralized or removed, which can usually be readily effected by aciduous, antalkaline, resolving and counteracting agents."

If Dr. Zeigler is correct as to the cause of a very large portion of the diseases to which the human family are prone, the treatment of them will be greatly simplified and their cure greatly facilitated and rendered far more sure of success. There is not a little valuable information in the work; and, even though the reader may not be convinced as to the correctness of the main hypothesis, he will not feel that his time has been wasted in giving it a perusal.

Editorial.

A State Board of Health.—We are indebted to our friend, Dr. Lisle, of Pataskala, a member of the Legislature of Ohio, for a copy of a bill which has passed the House of Representatives, establishing a Board of Health in this State. We would be pleased to copy it entire, but want of space precludes. It provides for the appointment of six members to the Board by the Governor, with the consent of the Senate. The term of office of two shall expire every two years, when two will be appointed to serve for six years. At their first meeting the Board shall appoint a secretary, who, by virtue of such election, shall become a member of the Board. His term of office is to continue during good behavior, but may be removed for cause by a majority vote.

The duties of the Board are described in the second section, which we will copy entire: "The State Board of Health shall have the general supervision of the interests of health and life of the citizens of the State; they shall especially study the vital statistics of the State, and endeavor to make intelligent and profitable use of the collected records of death and sickness among the people; they shall make sanitary investigations, and inquire respecting the causes of disease, and especially those of epidemics, the cause of mortality, and effects of localities, employments, ingesta, habits and circumstances, on the health of the people; they shall, when required, or when they deem it best, advise officers of the Government, or other State Boards, in regard to the location, drainage, water supply, disposal of excreta, heating and ventilation of any public institution or building." The Board are to hold their meetings at Columbus, at least once in a quarter, and as much oftener as they please. The members will have their traveling expenses paid, but will receive no per diem compensation. The Secretary is to be the business manager; is to have an office at Columbus; keep the records; aid in *obtaining contributions to the library and museum of the Board;* carry on correspondence; "collect information on the subject of hygiene, and through an annual report, and otherwise, as the Board may direct, shall disseminate such information among the people;" prepare blank forms of returns, and do many other things. In the way of compensation for the devotion of the whole time of a learned man of science to the most vital interests of the people of the great State of Ohio, *one thousand dollars a year is to be paid in quarterly payments*—rather less than is usually paid to a groceryman's clerk whose position is only a step higher than that of a day laborer.

To pay the *salary* of the Secretary, office rent and expenses, traveling expenses of the members of the Board, and whatever expenses the Board may see proper to incur, *the sum of* $4,000 *is appropriated.*

We are in favor of a State Board of Health. We consider that the exigencies of the times imperatively demand it; but the provisions of this bill do not create such a Board as is needed. It will be perceived from our outline and quotations that it will have no power whatever to enforce anything; and then the pitiful sum appropriated for its uses are so inadequate to the wants of an active, efficient Board as to be ludicrous. Of what account is a Board that can only advise? that if an individual would pour out a cart load of a nuisance in front of the door where it was meeting, it would be powerless to hinder.

It is remarkable that, while the city of Cincinnati will willingly tax itself to the amount of $20,000,000 for a railroad to the South to advance the value of its property, yet the great State of Ohio—or, rather, the Legislature of it—is only willing to appropriate $4,000 a year for the protection of the health and lives of the citizens of the State! We hope the time will soon come when a bill will be passed for the organization of a State Board of Health that will have adequate powers, and money enough will be appropriated for its purposes as to show that the people have an intelligent appreciation of the blessings of good health, and of the welfare and happiness that result from it.

MANUFACTURE OF MALT LIQUORS.—Not for the purpose of exhibiting the manufacturing industry of Cincinnati, but that our readers may have some idea of the immense consumption of liquors in this country, we quote from the report of Col. Sidney D. Maxwell, the Superintendent of the Chamber of Commerce of Cincinnati, an account of the beer manufactured in the "Queen City of the West," the "Paris of America:"

"The statistics indicate the production of beer, in the past year, both in Cincinnati and in the adjacent Kentucky cities, to have been the largest in the history of the business, having exceeded the preceding year 42,832 barrels. The production of malt liquors in Cincinnati proper, in the past year, aggregated 850,650 barrels, in comparison with 813,953 in 1882–83, 769,621 in 1881–82, 682,851 in 1880–81, 655,520 in 1879-80, 558,709 in 1878–79, 550,518 in 1877–78, 475,212 in 1876–77, 476,228 in 1875–76, 452,177 in 1874–75, 465,886 in 1873–74, and 467,790 in 1872–73. The production in Covington and Newport aggregated in 1883–84, 67,040 barrels, compared with 60,860 in 1882–83, 57,660 in 1881–82, 53,480 in 1880–81, 52,800 in 1879–80, 47,740 in 1878–79, 44,470 in 1877–78, 38,204 in 1876–77, and 40,586 in 1875–76. The production in the three cities thus aggregated in 1883–84, 917,645 barrels, in comparison with 874,813 in 1882–83, 827,281 in 1881–82, 736,341 in 1880–81, 708,320 in 1879–80, 606,449 in 1878–79, 594,988 in 1877–78, 513,416 in 1876–77, and 516,814 in 1875–76. The increase in production in the three cities, in nine years, has been 400,831 barrels, or about 77 per cent., to which Cincinnati proper has contributed 374,377 barrels. Represented in gallons, the quantity produced in the past year was 28,446,995."

Just think of it!—28,446,995 gallons of beer manufactured in a single city of this country in one year!—for Cincinnati, Covington and Newport form but one city. What a lake such an amount of fluid would make! But let us look further on in the report. "Making allowance," says Col. Maxwell, "for the stocks on hand at the opening and closing of the year, according to actual returns, and estimating the quantity which was shipped in bottles, it appears there *were consumed in Cincinnati, Covington and Newport, and their suburbs,* 581,266 *barrels, or* 18,019,246 *gallons, or the equivalent of* 232,506,400 *glasses of the usual size.*" Now, estimating the population of the three cities at 350,000, and supposing that every man, woman and baby drank an equal amount, it would show that each one had consumed during the last year over 500 glasses of beer, or two barrels each! But of course Cincinnatians are hospitable, and strangers are permittēd to drink as much as they please, providing that they pay for all they drink; and, as these persons usually take full advantage of their privilege in this respect, a few thousand glasses should be considered as having passed down their throats. But after deducting a liberal amount of the amber fluid for the consumption of visitors, enough will remain to show that permanent residents do not stint themselves.

But there are *some* persons in Cincinnati who do not drink beer or liquor of any kind. Leave out these, and what an enormous amount of the swill must be consumed by acknowledged drinkers! It is not necessary to make any comments—the presentation of the facts is enough. But is it any wonder that there exist so many disorders of digestion, diseases of the liver, diseases of the heart, and brain and nervous affections generally, when these facts are considered?

Beer is not the only liquor drank in Cincinnati. An examination would disclose a fearful consumption of spirituous liquors. Are the people of other cities more temperate? We think not. If less beer is drank in other cities in proportion to the population, it is because they have fewer German residents; but it will be found that a larger amount of spirituous liquors is consumed.

CINCINNATI SANITARIUM.—We have received the Eleventh Annual Report of this institution, for the year ending November 30, 1884. It seems to be in a very flourishing condition under the management of the present Superintendent, Dr. Orpheus Everts. At the beginning of the year there were in the Sanitarium 52 patients; there were admitted during the year 135 new cases. This is certainly an excellent showing for a private institution for the insane, dipsomaniacs, and those afflicted with diseases of the nervous system.

Some additions have been made to the buildings and other improvements. The Superintendent states that there has been no letting down in the character of the accommodations. On the contrary, there has been a steady progression, constant improvement in every material feature, and a constant effort to prove worthy of a good reputation fairly earned.

The reputation of the Cincinnati Sanitarium warrants the belief that it is not second to any institution of the kind in this country.

THE AMERICAN CROWBAR CASE.—In the last issue of *Harper's Monthly Magazine* is an article, entitled "The Brain of Man," by Ambrose L. Ranney, M. D., in which the celebrated "American Crowbar Case," as it is termed, is alluded to. We learn that it is now thirty-six years since the remarkable occurrence took place, of a crowbar, by an explosion of gunpowder, being driven or shot through a man's skull, perforating the brain. The older physicians of the present time are familiar with the account. The iron crowbar was three and a half feet long, one and a quarter inches in diameter, and weighed thirteen and a quarter pounds. At the time of the accident, we remember reading at the time, the victim was pecking some rock, in which had been placed a blast of powder, which had failed to go off. The powder became ignited from a spark struck, and the crowbar was hurled up through the man's head, entering on the one side upon the inside of the lower jaw, and out through the center at the top of the skull. The crowbar, which was hurled many feet away, was covered with brain matter.

The formerly distinguished surgeon of this city, Prof. R. D. Mussey, visiting in Massachusetts sometime afterward, went to see the subject of the accident, and examined the cicatrices at the points of entrance and exit of the crowbar. He told us of a number of incidents in the history of this most remarkable affair. The man was conveyed in a cart from the place where injured to his home, a distance of over a mile, we believe. Part of the way he got out of the cart and walked behind it, leaning with his arms on the hind part of it. He had no paralysis whatever. Prof. Mussey found him feeble minded, but, we believe, he stated that he had always been more or less so. The man lived for twelve years after the accident in good health. After his death the skull was exhumed, and to-day it is in the medical museum of Harvard University. Dr. Ranney states he worked upon a farm after the accident, his mental faculties being as good as ever.

Dr. Ranney says that this case "startled the minds of the reading public, and confounded the medical fraternity.

No satisfactory explanation of the remarkable features of the case could be given."

Some years ago we were called to a boy, about 10 years old, who had been kicked in the forehead by a horse. Three spiculæ of bone had been driven into the brain. The largest one was about two inches long and a half-inch wide. It had entered the brain lengthwise. Upon removing these spiculæ with forceps, near a tablespoonful of crushed, broken-down brain tissue came away. No paralysis followed. The boy recovered rapidly without any untoward symptoms occurring. He had fever only during one night, which was attended with restlessness. During that night, the attendant failed to keep the head wetted and cooled by constant change of cloths dipped in ice-water. There was no loss of intellectual power.

We had experience in another case in which there were some remarkable features. We were called to a young man who had been shot by a companion, the ball penetrating the parietal bone about an inch above the ear. The "shootist," when he fired, was standing on some steps several feet above his victim. The ball passed downward, and when we opened the skull, on making a *post-mortem*, we found it *lying in the forearm maguum.*

When we first saw the man, he was sitting upon the side of his bed. He afterward got up and walked around the room and went out into the yard. It was with difficulty for awhile that he could be kept in bed. He talked in an unmeaning manner, his appearance being that of one dazed.

PHOTOGRAPHY BY LAMPLIGHT.—We have received from our friend, Gov. Jacob D. Cox, of this city, a pamphlet containing several plates of photographs, taken by himself by lamplight, of diatoms, illustrating their structure. Other duties prevented him from photographing during the day, and consequently, he could only give his evenings to the task. Desiring amplifications by the microscope of from one to two thousand diameters, he was fearful at first that this could not be secured in photographing by lamp; but his inventive powers, it seems, afforded him the means.

The plates of the pamphlet exhibit nine very handsomely executed photographs of fractured diatoms, the purpose having been by Gov. Cox, in his examinations, to note the more striking examples of broken valves which he met and which seemed to throw useful light upon mooted questions.

Gov. Cox is an excellent illustration, that a man may be a busy lawyer, and yet be an industrious cultivator of the natural sciences. He is a great lover of microscopic investigations, and industrially employs his leisure time in observations with his microscope.

Dr. Jacobi's Inaugural Address.—On the 5th inst. Dr. Jacobi delivered his inaugural address on taking his seat as President of the New York Academy of Medicine. We quote a paragraph:

"A consideration of medicine during the eighteenth century formed the main part of the president's address. Altogether, he said, the medicine of the eighteenth century exhibited a peculiar character. The first position had to be conceded to France, and he referred to such names as Bichat and Broussais; but at present France possessed few men whose names would go down to posterity. In England there was the great John Hunter. Germany, which had occupied the background, at the present time stood in advance of all other countries in scientific medicine. Medicine during the eighteenth century was in that unsettled state most suitable for the development of such senseless deceptions as homœpathy, etc., and, when pathology had advanced to some degree under Rokitansky and his followers, the public was in that position where it preferred the homœpathist's pill-box to the pathologist's post-mortem case."

In another portion of his address, in speaking of living germs as the cause of disease, he says that he mentioned the subject to direct the attention of the Academy to the importance of its aiding, as far as it could, the scientific settlement of this question, which had now come to take such a strong hold on the minds of the profession. "But music," says he, "doubtless was a good thing; yet in Berlin, where fifty thousand or more learners were constantly thumping the keys of the piano, the people had lifted their voice in opposition, and pronounced piano-playing a nuisance. So bacteriology might be a very good thing, and all were willing to hear the expression of the matured opinion of such authorities as Koch and his peers, but when fifty thousand self-constituted, but incapable, authorities were constantly calling our attention to newly discovered bacilli, which were alleged to be the cause of this or that disease until the next one came along, he thought it was also time here to cry

'Stop!' The speaker then said that he thought bacteriology had too often to beg the question, and he then called attention to the fact that the symptoms arising from the chemical reaction of certain poisons resembled very much those of the infectious diseases which it was maintained were caused by vegetable organisms."

DEATH OF DR. DAMROSCH.—This gentleman, one of the most illustrious musicians of the present day, died in New York, February 15th. His disease, we understand, was pneumonia, complicated with pleurisy. He was sick but a few days.

Others more competent than ourself will speak of what he accomplished as a musician. We will only observe that, although he was what might be termed a musician naturally, yet he doubtless would have never attained to the great eminence he did in music if he had not bestowed upon it continued unremitting labor. In him was proven the correctness of the oft-repeated assertion that, "There is no excellence without labor."

Dr. Leopold Damrosch was in his fifty-third year; born in Posen, October 22, 1832. His parents had chosen for him the profession of medicine, and he matriculated at the medical department of the University of Berlin, as soon as he had completed his literary and scientific studies. In due time he graduated in medicine with high honors, receiving the degree of M. D. After graduation he returned to Posen, and began the practice of medicine, at which he continued until in 1855, when his great skill in music had attracted so much attention that he determined to devote himself entirely to it. After having secured a reputation throughout Europe as a musician, he came to this country, making New York his home.

COCAINE.—No, cocaine hydrochlorate, muriate, or, more properly, *chloride* ($C_{17}H_{24}NO_{4}CL$), has nothing to do with that edible substance called *cocoa* or chocolate. The latter is derived from the bean of the *theobroma cocoa;* the former is a salt of a rare and expensive alkaloid (present value, $5,000 per pound) obtained from the leaves of *erythroxylon coca*, a native of Peru and Bolivia. This is the plant about which such remarkable stories have been told regarding its tonic and stimulating properties—how the natives can travel for days without either food or sleep by simply chewing the leaves. The alkaloid is the active principle of the plant, and until recently was considered as a chemical curiosity. The chloride is not the only anæsthetic salt, as the citrate has lately been employed by German dentists for "preparing" sensitive teeth before filling them. It is made into small pellets which are wrapped in wadding and placed in the hollow of the tooth. All sensation is soon destroyed, and the tooth can easily be cleaned out and filled without pain.

MONTREAL, January 15, 1885. P. A. LAVER, M. D.

REMOVAL OF THE UTERUS AND ITS ANNEXA.—In a recent number of the *New York Medical Journal*, in a report of the proceedings of the New York Surgical Society, Dr. Briddon reports the removal of the uterus followed by death on the sixth day from peritonitis *excited by the presence of a sponge*, which had carelessly been left in the cavity of the abdomen after the performance of the operation. The diagnosis made previous to the operation was submucous fibroma. When the hand was introduced into the vagina, two fingers could be passed through the cervix and directly up to the left corner, and when these two fingers distended the cavity of the uterus no tumor could be felt within, but bimanual examination proved that the tumor occupied the right side of the uterus and the corresponding broad ligament.

The operation is described as follows:

> "An incision was made in the median line from below the umbilicus to just above the pubes. After the arrest of hæmorrhage from a few bleeding points, the peritonæum was opened and the tumor exposed. It was found to involve the right side of the uterus, passing into the corresponding broad ligament. There was also found a small cyst in the ligament, and unconnected with the uterine tumor, also a cyst as large as a lemon in the left ovary. The tumor was held down in the pelvis so firmly that it was found impossible to lift it out until after ligation and separation of the broad ligaments. This division was made well outside the tubes and ovaries. Even after this liberation it was found difficult to bring the supra-vaginal portion of the cervix into the view. A stout cod-line was then passed round the tumor and tightened by an ecraseur so as to compress the cervix temporarily preparatory to the application of an elastic ligature, which was passed twice round and clamped. The cod-line was then removed, and the section of the tumor was absolutely bloodless. It was intended to transfix the pedicle above the ligature with some gilt steel acupressure needles, but they were not deemed sufficiently strong, and a trocar was used. This was the exception referred to in the statement that all the instruments had been scrupulously cleansed, the trocar was clean, and was in the carbolic acid solution, but it had not been so thoroughly treated as the others. There was nothing to

clean out of the peritonæum save a little blood from stitch-holes, and that was absorbed by a flat sponge. The abdominal walls were brought together by silk sutures. There was some little difficulty in placing the stump outside the walls; it was well dusted with iodoform and twelve layers of fifty per cent. iodoform gauze were used in the dressing, supplemented by a quilt of bichloride jute.

The tumor weighed three pounds. It was determined to be a soft fibroma—being of a soft, succulent character.

On the day following the operation the condition of the patient was satisfactory. Pulse, frequent; temperature, 103°; appearance good. Second day—temperature, 102°. On third day temperature was down to 101°, and everything seemed hopeful. On fourth day there was an unfavorable change, and temperature went up to 104°. The heart failed rapidly, and she died on the morning of the sixth day.

On post-mortem examination there was found no distension of the abdomen, or undue accumulation of gas in the intestines. No general peritonitis. The cecum, small intestines and a part of the colon were in the pelvic cavity, and more or less glued together by inflammatory exudation. The recto-vaginal pouch was covered by a layer of recent deposit, and a very small amount of pus. The stumps left by excision of the ovaries were not inflamed. The inside of the wound bore evidence that the healing process was progressing favorably. In the iliac fossa, near the cecum, a sponge was found seven centimetres in diameter. It was almost, if not entirely, encapsulated by inflammatory lymph.

"The fatal flaw in the technique of this operation," says Dr. Briddon, "was the omission to count the sponges before closing the wound. I can not plead ignorance of the necessity for attention to so important a detail, for I was conversant with the accidents from such cause published in the literature of the subject. How it could have happened, surrounded as I was by my trustiest friends—men accustomed to deal with such cases—is more than I can tell."

NOTICE.—We hope our subscribers will not forget that we have entered upon a new volume, and will remit their subscription. Those owing us for past years should forward what they are owing us without delay.

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Original Contributions.

A Discussion of Some of the Questions of Medical Education and Medical Ethics.

BY HENRY LEFFMAN, M. D., D. D. S.

FROM the valuable volume on medical education published by the State Board of Health of Illinois, we learn that the United States contains one hundred and twenty-three medical colleges, of which ninety-one are classed as regular. The Illinois Board has been an active one; has adopted a list of minimum requirements for admission and graduation, and in conjunction with other State Boards has accomplished much for medical reform, as the following figures will show. Prior to its present organization, thirty of the regular colleges required an admission examination; now fifty-nine require it, and this number will doubtless be largely increased next year. Ten colleges formerly required three courses of lectures; sixteen now require them. The course of instruction has, in many institutions, been improved by the addition of chairs of hygiene and medical jurisprudence. A part of these improvements has been brought about by the natural progress of educational methods, and by the desire on the part of teachers to add to the attractions of their institutions; but a portion is also in deference to the demands of the State Boards.

A perusal of the volume referred to, in which the requirements and facilities of the colleges are set forth, shows us how very unequal is the character of the education given in different parts of the country. With some of these institutions the course of study must be a mere pretense.

It has been apparent for many years that active measures must be taken for securing reform in medical education. In considering the topic, we must bear in mind the responsible position which the medical man holds in society. He is no longer called upon merely "to give the potions and the motions." Education and legislation, the control of which has for centuries been in the hands of clergymen and lawyers, is becoming largely a medical problem, and the well-informed physician becomes a factor of no mean importance in social progress. At the same time the requirements of a thorough medical education, in the narrowest sense of the term—that is, knowledge of disease and its treatment—has become a problem of far greater difficulty than it was a generation ago. A correct and sufficient knowledge of the instruments of precision requires an acquaintance with various accessory sciences. The laryngoscope and ophthalmoscope involve optical principles; the elaborate electrical machinery employed calls for a more than rudimentary acquaintance with mathematics and physics, and the many chemical tests which are required for diagnosis involve a need for some practice in the chemical laboratory. On the other hand, the importance of a classical training has been overrated, and in the preliminaries to a medical education it may receive scarcely any attention; but its place is supplied by two of the modern languages in which so much of the important scientific literature is found.

In offering a synopsis of the directions which medical reform should take, I may conveniently present the topic under four heads: 1st, the preliminary examination, 2d, the course of study; 3d, the method of graduation; 4th, the ethical relations.

The preliminary training presents great difficulties. It is nearly impossible to say what amount of actual information would be the minimum which should qualify a young man or woman to enter the study of medicine, and the opponents of the admission-examination system have urged this as an objection, and have spoken of "natural aptitude" in those comparatively uneducated; "rough diamonds," etc., which are likely to be unjustly excluded on account of technical deficiencies. Yet it must be noted that all colleges and high schools conferring degrees other than those of medicine, have always had such conditions of admission, and no one has ever thought the obligation burdensome. I do not think that the requirements for admission to medical schools should include a knowledge of the dead languages, except, possibly, an acquaintance with the regular declensions of the Latin nouns—a degree of information which could be acquired in a few hours; the value of the knowledge is only in its bearing on correct prescription-writing. I take issue, therefore, with such conditions as those imposed by Harvard College, which requires the translation of easy Latin prose; and also the schedule of the Medical Society of this State, which imposes a knowledge of this tongue. On the other hand, an elementary knowledge of algebra and geometry is essential to a correct understanding of the teachings of chemistry, electro-therapeutics, and ophthalmology, and from practical experience I know that insufficient preparation in these matters has cost many a student a vast amount of labor and study. It is not at all improbable that, as the standard rises, some of the essentials of anatomy and chemistry will be entered among the preliminary requirements.

I must also object to the following requirements in the Pennsylvania schedule: Botany, Logic, Drawing, Greek, Political Economy and Algebra, except to simple equations. Botany, as generally studied, is a mere accomplishment, and its practical value in medical science is very small. Political economy is, in my opinion, a department of science in which the danger of a little learning is very serious; it has no elements.

We must, by all means, regard the preliminary examination as a protection to the pupil. It is said that one of the head masters of Eton would not infrequently say to the scholar about to be thrashed, "Sir, this is the office of true friendship." Pupils do not take kindly to admission examinations, and it will be more difficult to enforce them in medical colleges, because every one has become accustomed to the unrestricted acceptance of students.

An effort will have to be made to secure for this examination an approach to uniformity among the different colleges. It will not amount to much, if each institution is allowed to set up the standard for itself, and to determine privately how far each pupil attains it. It is hinted that in some institutions, which have made great claims on account of their admission requirements, and the diplomas of which have received special privileges abroad, the examination is a mere form. The attidude which the Medical Society of Pennsylvania holds in reference to this topic is very unsatisfactory. For years it has been adopting resolutions and threatening punishment, but it seems never to get its courage up to the point of insisting on reform. These standing resolutions appear to be remarkable for little else than their hollowness and insincerity.

Opportunities for great improvement are to be found in the course of study. It would be curious to know under what circumstances originated the extraordinary method of medical instruction according to which the student is not to know anything, however easy, if he has heard it once, and to know everything, however difficult, if he has heard it twice. I can not see that this state of affairs is materially improved by extending the term over three years. It relieves, perhaps, the pressure of study, but it only nominally lengthens the course. It is now generally thought that the science and art of medicine can not be acquired in two years, and most of the American colleges state in their announcements that the candidate for graduation must have studied three years. The usual plan is, however, to allow these three years to be two courses of lectures, and one year under a preceptor, whose certificate to that effect is generally taken. When it is remembered how easy it is to secure such certificates, and how irregular and uncertain is the instruction often given by preceptors, it will be seen that this preliminary year may be a fiction. If a year outside of college is to be counted at all, it should be upon a record dated at the beginning of the year; that is, the pupil should produce evidence of having declared his intention to pursue his studies for a year in a physician's office. I do not think, however, that this matter will require much attention, for the pre-college year will soon be abandoned. Another method by which the study is cut down to short periods and insufficient work, is the practice of giving credit at one college for the time spent at another. As a general rule, the evidence of the prior study is merely the statement of the pupil and the exhibition of a full set of tickets. Neither of these is sufficient proof of actual attendance, and even if they were, there would still be no proof of the student's fitness to proceed with the second course. The proper test of the student's fitness to proceed with his studies is an examination. This is the test that non-medical colleges would apply.

The most radical improvement that I have to suggest is that to which I have already referred in a paper before the Medical Society of Pennsylvania, namely, that the full college course should include a recognition of each specialty, and offer the option of pursuing the study of one or more of them, not as side studies or post-graduate courses under junior teachers, but as part of the requirements of graduation. I have compared this plan to that under which the universities give courses of instruction in mechanical, mining or civil engineering, the option of one or the other being left to the student. The whole tendency of medical practice is toward specialism, and one of the difficulties of maintaining the ethical standard is the constant struggle of specialists to draw attention of the community at large to their lines of practice. Forbidden to advertise directly, they seek methods that are illegitimate. I think it will be admitted that the best interests of the profession and the public are subserved when the patient is directed to the proper physician with the least inconvenience, delay or confusion. Those who object to specialism forget that the degree of M. D. is itself a special degree, and limits the service of those who bear it. No one objects to the degree of D. D. S., and no one can deny that the value of dentistry has been vastly improved by the establishment of colleges and the creation of the degree. Why should we not multiply these degrees, and so arrange the college courses that each might be conferred on those who prepare for it? Doctor of ophthalmology, otology, or dermatology, may seem strange to our ears, but they are as reasonable as the titles, bachelor of science, of mining, or of music, now conferred by the universities. The *Journal of the American Medical Association* has declared it allowable for a physician to put on his card, "Practice limited to such and such diseases," but I do not think that this view has been generally accepted. The proper method to secure recognition is by degrees, which indicate that studies have been pursued which fit the practitioner for the work undertaken. "John Smith, M.D., D.D.S.," is the legitimate manner of showing that the said person has pursued a course of study in general medicine, and then in a special department. I can not see why "John Smith, M.D.O.," should not indicate the same with regard to ophthalmology. I wish to present the idea that these special degrees should all be in the compass of a regular medical school; the studies for the first year would be the same for every degree; but in the second and third years they should be directed to the end in view. I consider this preferable to forcing all into the same studies, and then resorting to post-graduate instruction as a preparation for practice. Instead of a faculty of seven chairs, it would be more satisfactory to have fourteen. There is no good reason why the instructors of the diseases of the eye, ear or mind and nervous system should not stand on an equal footing with the professor of gynæcology or obstetrics, instead of being, as they now are, mere appendages to some chair, or recognized only as subsidiary summer lectureships. That some of these departments can not be satisfactorily included within the original chairs, is because they are, for the most part, developments of late years. Sanitary science, psychiatry and inebriety have become distinct sciences. The first has acquired so much importance, that, in some States of the Union, a knowledge of it is necessary to the validity of a medical degree.

I think it can not be denied that a feeling is gaining ground in the community, that the right to practice medicine is one that should be more completely under State regulation than at present. The objects to be sought are, that all practitioners shall be able, and, as nearly as possible, equally able, and the latter can not be obtained as long as the graduation is made to depend on the standard set up by individual institutions. The transfer of the work of examination to a State Board, and the conversion of the colleges to centres of instruction only, would solve several of the troublesome problems of college management. The faculties would surely not regret the loss of the labor of either the oral or written examination. It would place competent and efficient teachers on a much higher plane than they now are, while it would go far toward crowding out inefficient ones, for each examination would be a record of the manner in which the candidate was prepared. These State Boards should accept any one who could bring certificates of good moral character, proper age, sufficient preliminary training, three years' study under instructors recognized by the Board. Under the present arrangement, a student attending any given college is obliged to take all his instruction from the faculty thereof. If one or more of the professors are inefficient, he must take extra time and spend extra money to get proper preparation. Under the system here advocated he could select his instructors from the different faculties accessible to him. Such a weeding process would very soon throw out the weak teachers, and form faculties strong at all points, and this surely would be to the advantage of the profession and its education.

A vital question that arises in reference to State Boards is, their relation to the different schools of practice into which the medical profession is unfortunately broken. It is the fear of the homœopathic portion that has, in part, prevented the establishment of these boards. They are afraid that they will be used for the purpose of preventing any but regulars from getting into practice. They have insisted on, and, I believe, obtained in most cases, recognition and representation. I desire not to be narrow or bigoted, but I can not divest myself of the impression that it is thoroughly absurd to suppose that there can be two systems of therapeutics; but, however this may be, the course to be pursued by the State is plain. The majority must rule, and the system which is most comprehensive must be insisted upon. There can be no question that the majority of both learned and unlearned persons in such a community as ours favors what is known as the regular system. On this ground, therefore, a knowledge of that system should be required for practice. Those who desire to pursue any special system, might, in addition, be required to pass an examination in the special features of that system.

Typho-Malarial Fever.

BY J. C. B. RENFRO, M. D., LAGRANGE, TEXAS.

Read before the Texas State Medical Association.

The above name is given to a fever which prevails more or less in all malarious regions. It seems to be a kind of amalgam fever, or where malarial and typhoid fever prevail at the same time in the same patient, each fever running its course. The malarial fever predominates at the outset of the attack, and afterward the typhoid symptoms setting in. The malarial symptoms are generally of the remittent type—paroxysms every twenty-four or forty-eight hours. The typhoid symptoms are all those connected with typhoid fever, and sometimes throughout the disease there seems to be a commingling of the two diseases in the same patient at the same time. In those cases that prove fatal the same lesions are found as in true typhoid fever.

Those attacked with this fever usually commence with a chill, followed with high fever; temperature running as high as 103° to 106° F., when, after the usual period of from three to five hours, the sweating stage sets in, followed by the usual symptoms of simple remittent fever, general malaise, bleeding at the nose, profuse perspiration, a lowering of the temperature down to almost normal. This condition may last for several days; paroxysms occurring every twenty-four or forty-eight hours, running the same course as before, until finally the typhoid symptoms predominate and run the usual course; there being a difference of one to three degrees of the temperature morning and evening, the evening being the highest. The tongue is usually heavily furred, with tip and edges red. Sometimes the coating is slight, with the papillæ projecting so that it resembles the strawberry tongue. The bowels, at times, are loose, at others constipated. The fœcal discharges are usually of a thin, dark color, and offensive; more or less tympanites, in the latter stage of the disease, tenderness over the bowels and gurgling about the illio coecal valve. Enlargement of the liver and spleen sometimes comes up during the course of the disease. Intense anorexia and a desire for cooling and acid drinks prevail throughout the disease. The appetite is usually very poor, with a loathing for most all kinds of food. The urine very high colored, charged with bile, acids, and sometimes a trace of albumen in it. The cheeks always flush when the temperature begins to rise, and will last until the temperature begins to fall or sink lower, and then the flush fades away, leaving the pale, sallow hue characteristic of true typhoid fever. As to diet, during the course of the disease, I usually recommend milk, when it agrees with the patient; when this does not agree with them, oyster soup, or the concentrated essence of beef with soft-boiled eggs, etc. If there should be indications of asthenia or failure of the heart's action, I use alcoholic stimulants very freely, of which I prefer good, imported cognac brandy, and if necessary, combine same with carbonate of ammonia, and it may be necessary to use digitalis to strengthen and sustain the heart's action; at all events the diet should be mild and as easily digested as possible. Patient should be careful as to diet, etc.

PATHOLOGICAL CHARACTER AND CAUSATION.

This fever is due to poison known as malaria and the special cause of typhoid. It seems that these fevers follow in the wake of the malarial fevers, and generally come up in the latter part of the summer and during the autumnal months. I think there is an atmospheric influence that breeds and develops these fevers. I have observed this phenomena since the year 1875, that when drouth prevails and the evaporation of moisture from the earth gets beyond a certain point, these fevers develop, sometimes in their worst forms, amounting almost to an epidemic and malignant in their character; and *vice veesa*, after an extended drouth, and then floods of rain saturating the earth thoroughly, that this fever also develops, and the malarial aspect of the disease is of more grave importance, requiring more prompt and energetic treatment to subdue it.

DIAGNOSIS.

"Typho-malarial fever is discriminated on the one hand from simple remittent fever by the characteristic events of typhoid fever, viz., the abdominal symptoms, the eruption in some cases, the earlier occurrence of ataxic phenomenal epistaxis, and occasional intestinal perforation. It is discriminated on the other hand from unmixed typhoid fever by the characteristic events of periodical fever, viz., remissions, gastric symptoms, jaundice, and the eventuation, in some cases, in intermittent fever." Typho-malarial, after the first few days, if proper treatment be applied, will run almost the usual course of true unmixed typhoid, with this difference, however: on alternate days the temperature is almost always from one to two degrees F. higher, in true typhoid never. In typho-malarial fever the temperature is usually higher the first few days, then sinks to a level, with a gradual rise of from two to three degrees F. in the end of the second week or beginning of the third, then it usually remains about the same for about one week, then a gradual decline until convalescence is fully established. The tongue will become clean and resume its normal appearance, and convalescence ensues proper, unless a relapse should occur from some imprudence on the part of the patient. Sometimes the tongue will clean off and assume a glossy appearance; when this is the case convalescence will always be protracted. Sometimes it is almost impossible to diagnose a case of typho-malarial fever the first week of the disease. There is one point that I have noticed more particularly in typho-malarial fever, and that is, a flacidity of the veins of the back of the hand, with a purplish hue of same. In some cases the circulation and pulse are both depressed, and others the pulse is full and bounding. Colliquatives weats appear in some cases, others the skin is dry and burning hot most of the time. In some cases coliquitive diarrhœa prevails, in others cathartics and laxatives must be used.

PROGNOSIS.—In almost all cases where the complications are not too grave, the prognosis is favorable. I have noticed this, however: when there is a depression in the circulation and capillary congestion remaining for any length of time, pulse being low and the temperature running very high, and not an equal difference between the temperature and pulse, the prognosis is always grave in those cases; but under favorable circumstances, when there is no congestion of any internal organ early in the disease, no hemorrhage setting up from the bowels, and all the functions acting properly and evenly, running a regular course, the prognosis is always favorable. A sudden fall of the temperature is always indicative of hemorrhage from the bowels. Colliquative diarrhœa and sweats are also grave symptoms, as also petechia and echymosed spots on the cutaneous surface. Loathing of food during the entire course of the disease is also of grave importance; while on the other hand, an appetite to take on some food every day is a very favorable condition, and is indicative that the patient is not likely to die of asthenia. Upon the whole, taken as a general rule, the prognosis with proper treatment is favorable. Bronchitis or pneumonia, setting up as a sequel, is also a very unfavorable phenomena. I have seen a high state of inflammaion of the bowels set in the tenth day, and terminate fatally in a few days afterward.

TREATMENT.—I now approach a point wherein we may all differ in some degree, but I hope not materially. We may differ as to therapeutics in the choice of our remedies, as to which are the best, but in the main, if we understand the disease thoroughly, we will treat the disease similar. And first, as we have a mixed or two diseases to contend with in our patient at the same time we, must keep this in view; and as the malarial feature is predominant in the outset, I think the rational treatment would be, or is, to subdue all the malarial influence exerted on the economy, as far as we can, with the remedies usually used to subdue simple remittent fever, always keeping in view the condition of our patient and endeavor to irritate the bowels as little as possible. This I always do with broken doses of mercury until the secretions are thoroughly aroused, using some sedative mixture, say aconite fl. ext., one drop in water every hour until the remission occurs, then large and full doses quinia sulph. until cinchonism is produced; then a quietus in the patient's condition is always produced, after which the typhoid symptoms will manifest themselves. I then change the treatment, unless symptoms predominate demanding calomel and quinine. I seldom use it any more in the case. If pronounced intermissions should occur, we may try the quinine again, but usually it will be of little avail. It generally will produce gastric and intestinal irritation, which we should avoid as far as possible. I have myself thought quinia indicated in the latter course of the disease, and have given it, but most always with deleterious results to my patient; the next day the temperature rising higher by one or two degrees than before the administration of the drug. After the malaria is subdued in the system, but little medication is indicated usually; watch the patient closely, and the disease from localizing itself on any of the internal organs. I usually place my patients on a compound turpentine emulsion, consisting of

℞.	Oleum Terebinth Fl., - - -	ʒ ij.
	Potassa Chlor, - - - -	ʒ i.
	Acid Hydrochloric, - - -	M xxx.
	Pul. Gum Acac, - - - -	ʒ vi.
	Aqua pura qs. to make a 6 oz. mixture.	

Of this, give to an adult 1 tablespoonful every four hours. In the interim give 1 of fl. ext. aconite every hour to control the circulation. Also,

℞.	Sodæ Salicylate, - - - -	ʒ vi.
	Aqua Aromatica, Fl., - - -	℥ vi.

M. Sig. 1 tablespoonful every five hours.

The theory of this treatment is this: the emulsion keeps the secretions aroused, and the tongue seldom becomes dry. The salicylate of sodæ acts as an antipyretic, antiseptic and tonic, while the aconite controls the circulation. I seldom change this treatment throughout the typhoid stage; that is, generally. Of course, complications sometimes come up calling for other remedies, such as too frequent stools coliquative sweats and asthenia. The first I usually control with

℞.	Doveri Pul., - - - - -	grs. xx.
	Bismuth Subnit., - - -	grs. xl.

M. Ft. Chart No. iv.

Sig. 1 powder every four hours, as long as necessary.

The other two symptoms I usually control with alcoholic stimulants. Should hemorrhage occur from the bowels, it is usually easily controlled by fl. ext. ergot and bismuth combined, or in conjunction, a few doses of which generally answer the purpose. Of course complications will sometimes come up calling for other remedies, of which we must be our own judge. In convalescence tinct. of bark, preparations of iron and a nourishing diet are indicated, and should be taken in moderation.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS from the French, by Dr. Illowy, Cincinnati, Ohio.

NEUROPATHIC SNEEZING.

By CHARLES FERI, M. D.

SNEEZING consists of the rapid succession of the two movements of respiration which are effected rather bruskly, after the manner of a convulsion; respiration is profound, as also the expiration, which is at the same time more or less sonorous. This respiratory convulsion is generally determined by some local irritation, provoked by a foreign body, or by an inflammation of the fituitory mucous membrane. In a certain number of cases the sneezing is of reflex origin. It is thus we see it provoked sometimes by irritations at a distance, as, for example, one affecting the mucous membrane of the eye; at times it is dependent upon helminthiasis. We can, perhaps, attribute to the same mechanism the production of sneezing in paroxysms, which Peter Young* observed in two successive pregnancies in the same woman, and observed in another case by Romberg.

It may be due to a material lesion of the forgeminous. Romberg cites the case of a woman who had paroxysms of sneezing for four years in consequence of a fall on her head. At the autopsy there was found an alteration of the neurilemma of the third branch of the fifth pair.

In a certain number of cases it is not caused by any peripheral irritation, local or distant; it is dependent upon a constitutional neuropathic state. It is thus that Brodie* reports the history of a young lady who was subject to paroxysms of sneezing followed by nasal flux, and alternating either with paroxysms of nervous cough or with spasms of suffocation, due to *globus hystericus*, or other convulsions.

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*Hundfield Jones. Studies on Functional Nervous Disorders. London, 1870. P. 644.

This respiratory convulsion, which is of the rarest spasmodic manifestions, may be encountered in the male as well as in the female sex. Romberg cites the case of a boy of thirteen who had paroxysms of sneezing alternating with paroxysms of nervous cough,† and another young man who always sneezed when he had an erotic thought. Generally these convulsive sneezings come on in paroxysms, more or less repeated; are accompanied by a certain secretion which in some cases is remarkably abundant, and are preceded by a tickling sensation; but the associated phenomena may be wanting.

In one of his last clinical lectures M. Charcot showed us a young girl affected with sneezing, coming on in paroxysms, and whose history merits attention.‡

The case is that of a girl aged 16, who, from her mother, has a well-marked neuropathic heredity; she herself presents traces of scrofula. Her malady began in January, 1884. It consists in nervous crises, with cough, laughing and convulsive sneezing, which presented themselves at the beginning just as they are still to-day. It must be added right here that the young girl presents a certain number of permanent stigmata of hysteria; she has a sensitive-sensorial hemianalsthesia of the left side, with loss of muscular sense, diminution of the tendinous reflexes and dynamonetric force, and besides, has hysterogenous points on a level of the right breast and in the left ovarian region. These characteristics enable us to recognize immediately the nature of the convulsive manifestations which present themselves under the form of crises preceded by an *aura*, consisting of a feeling more or less distinct that starts from the left ovarian region and rises to the larynx; at times the patient gapes at the beginning of the attack. The attack proper manifests several variations in the succession of the convulsive manifestations.

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*Brodie. Lectures Illustrating Certain Local Nervous Affections. London, 1837. P. 61.

†Romberg. Lehrbuch der Nervenkrankheiten der Menschen. Bd. ii. P. 88. Berlin, 1851.

‡The case has been fully reported by Louza Lerte in Archives de Neurologie, No. 85.

First, it may begin with a paroxysm of convulsive laughter, followed by the attitude of an *arc of a circle*, then sneezing, then laughter; 2d, or she assumes the *arc of a circle* attitude first, then comes sneezing; 3d, or she is seized with an attack of spasmodic cough, followed by the arc of a circle attitude, and then sneezing. This sneezing is very rapid—32, 37, 40 times per minute having been counted. From the 21st of October to the 12th of November she has sneezed in paroxysms 16,195 times. In a case of Mosler's it was counted that the patient sneezed 50,000 times in three days.

In the case of M. Charcot the sneezing differs in this point, which distinguishes it from other analogous cases, that it is not followed by any secretion and can not be considered otherwise than an epiphenomenon of attacks, which, from their particular form, must be attributed to hysteria; we find, in fact, the arc of the circle so characteristic of the convulsive manifestations of the grand neurosis, and further disclosed by the permanent stigmata we have enumerated above.

A certain number of other cases of the same category were also in subjects manifestly hysterical. This circumstance will enable us to understand how sneezing, like other hysterical manifestations, has been observed as an epidemic. We must add that the prognosis in this convulsive respiration is not always a benignant one, if we are to believe Sauvage.* It has been seen "so violent as to often cause death, whence the custom to salute those who sneeze."†—*Progres Medicale.*

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*Sauvage. Norologie Methodique. 1771. T. ii. P. 51.

†A custom still in vogue in many countries, as, for instance, in Germany, where they say, "Zum wohle" (to your health), translated.

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Restoration of Natural Color of Hair.—Vandeleur C. Isdell (*Medical Times*) gives an account of the case of his father, who, in 1861, when 62 years of age, was completely gray in the hair of his head and beard, whereas, in 1882, that is to say, 22 years later, when he died at the age of 83, the hair of his head was of its original natural dark color—the whole of it being quite dark, with the single exception of a few gray hairs on each temple. He had for many years kept his beard shaved off, so the change in it could not be noted.

Selections.

The Law of Insanity.

Absurdity of the present system illustrated in the Taylor Case.

BY H. C. WOOD, M.D.,

Professor of Therapeutics, and Clinical Professor of Nervous Diseases in the University of Pennsylvania.

THE decision and acts of Judge Ludlow's court in regard to medical experts illustrate a practice which has had much to do with the present low condition of expert testimony in this country. So far as medical questions are concerned, the fault and the consequent disgrace lie not with the proper qualified experts, but with the practice adopted by judges of admitting any one to the stand who will put himself forward, however ignorant he may be. The law has taken away from the medical profession all control over its own membership and its own government. It has handed it, helplessly bound, over to the medical colleges, institutions without responsibility, from whose secret examinations all light of publicity is shut out, institutions which directly derive large revenues by letting loose upon the profession uneducated men. In the eyes of the court these men are all experts, to the play of whose ignorant fancy human property, liberty and life are left almost unprotected. There are cases of mental disease lying in the borderland between sanity and insanity, concerning which there must always be a difference of opinion. But omitting such cases, I have never personally known any serious divergence of opinions in medical jurisprudence, which did not grow out of the ignorance or incompetence of one of the two sets of experts. Very rarely does the student in this country study medical jurisprudence at all; and only when called upon in after-life, suddenly, it may be, does he open a work upon that science. The present system works ill both ways—in convicting the crazy man and in liberating the sane murderer. Trials involving the question of insanity are fast becoming such a farce in this country, that he who sees them as they are, hardly knows whether to laugh or to cry; but it is the judicial and legislative professions, not the qualified experts, which are chiefly at fault.

Experts are almost as much a necessity in a court of justice as the judge himself, yet our customs are stripping their testimony of almost all its value. To laugh at them, to worry out and get ahead of them in the battle of wits—which is dignified by courts as a cross-examination—is much of the business of the modern attorney.

The nervous system of man has for its powers or functions, will, which controls all actions.

The basis of all proper laws must be either abstract justice, or necessity for the protection of society; as equivalent terms to abstract justice, may be used the expression "moral equity," whilst "public policy" may be employed as a brief equivalent to the necessity for the protection of society.

The demented criminal is justly held by the law as irresponsible, because his intellectual faculties can not distinguish right from wrong, and therefore his will can not select between the two courses of action. This is a recognition by the law of the moral equity of the case; but, in order to protect society, the man is locked up, although moral equity does not demand his incarceration. It can make no difference in the moral equities, what is the immediate method or cause of the loss of the alleged criminal's free will. If the will itself be paralyzed by disease, the individual, so far as his moral rights are concerned, is in the same position as though the will had power but could not act properly on account of the perversion of the intellect. Again, if there be disease in the lower or spinal nerve zone, then the individual is freed from legal as well as moral responsibility, so far as concerns the muscles immediately affected by such disease. Thus, if in any situation duty require a man to put forth his hand, and if the arm be paralyzed by disease in the spinal zone or region, the man is freed from responsibility, because he has no free will in the matter, the possibility of his action being estopped. Again, if the disease of the spine cause an uncontrollable spasm of a man's arm, and disaster results from such movement, the man is still free from responsibility.

It is the office of the will to control the passions, by preventing a discharge of nerve force from the zone or region whose function they are. The same morbid process which, when attacking the spinal cord, causes a discharge of nerve force, and a consequent spasm of the muscles, may so attack the portions of the nervous system controlling the passions, that the will has no more power over the discharge of nerve force from these emotion centres than it had over the discharge of the spinal nerve force that caused movement of the arm in our suppositious case. The free will is paralyzed in either case, because disease has so affected a lower nerve center, that said nerve center will not mind the behests of the will. A man's free will being in any way destroyed, the equity must be that the individual is relieved from responsibility. If we look at the subject anatomically, the absurdity of the law becomes even more apparent. The four zones of nerve centers may be with sufficient correctness considered as placed one above the other; at the bottom is the spinal system, above the emotional, above this the intellectual, and higher than all, the will zone. Now the law appears to be that, if a tumor, inflammation, or other lesion affects the spinal zone so that the will can not control its discharges of nerve force, the individual is not responsible for results which grow out of such loss of control; if the intellectual zone be changed, the same rule of law applies; if the will zone be affected, again is the individual freed from responsibility; but if the tumor or inflammation locates itself in the emotional zone, then must the man be hung for acts which are entirely beyond his control and are the product of physical disease. A fraction of an inch, one side or the other, in the situation of a disease of the nervous system, makes the difference whether the sufferer is taken care of for life or is to be hung.

The complete *reductio ad absurdum* is, however, to be found in the single case: Suppose a man has a shifting, nervous irritation. If to-day such irritation paralyzes the intellectual centers, the man is irresponsible; but to-morrow, when the irritation shifts to the emotional centers, the man is responsible, although in either case equally helpless against his deceased self.

I have no mawkish sympathy with criminals. I believe that every man who is convicted three times of a felony should be confined for life and made to support himself by labor. I recognize that society has the right to take human life, when such taking is absolutely essential for the protection of society, whether abstract justice warrants the sacrifice or not. I do not complain simply because the law unjustly takes the life of the insane man. Death to the hopelessly insane is often a boon, a rest, and is never a distinct evil. The deep damnation of the statute is in that it publicly brands the unfortunate victim, in his helplessness, with the mark of Cain, and if he have a family, shadows the lives of those he leaves behind with perpetual infamy. If the protection of society demands that the insane murderer be put to death, let such death be as painless, and as far freed as possible from the horror of expectation, and let it be distinctly stated by the judge, "This man, though guiltless, because irresponsible, is to be put to death for the protection of society." Beyond all, is it important that the law be consistent with itself, so that the growing feeling of distrust of and contempt for our courts may not ripen into quiet lawlessness, and fraud be habitually met by fraud, through the hopelessness of an appeal to the courts.—*The Polyclinic.*

Purgatives in Pregnancy.

BY JNO. H. M'INTYRE, A. M., M.D., ST. LOUIS.

It may seem rather presumptuous for one whose work for nearly a quarter of a century has chiefly been a surgical one, to speak of such a subject as this, but when I remark that for a number of years past gynæcological patients, almost daily, present themselves at my office, I may be pardoned for referring to the above subject.

It is undoubtedly true that purgation during the period of gestation is not infrequently followed by miscarriage, and also, that miscarriage is more often followed by subinvolution than by labor at full term, with all its long train of aches and ails, its nervous ills, its endocervicitis, its granular erosions, and its misplacements.

Women oftener suffer from constipation than men, and according to my experience, they oftener suffer from piles, while on the other hand, I observe fistula in ano oftener in men. Why this is so, good reasons might be assigned, but they do not come within the scope of this paper. I lay it down as incontrovertible, that pregnant women of the present day often suffer serious harm by the indiscriminate dosing of pills of unknown composition, with which the market is flooded, and that many cases of unlooked for and "unaccountable" miscarriages are produced thereby.

In this connection, I wish to say, that during the past summer, I have used with great satisfaction the Acid Mannate put up by the Rio Chemical Co., of this city, St. Louis. It has a wide range of effect, and is withal very pleasant to the taste, and being in liquid form, is not open to the objection of those who can not "swallow a pill." As its name indicates, it is composed of the "concrete saccharine exudation" of the beautiful Manna ash, which is found in such luxuriance on the plantations, or *frassinetti*, which skirt the northern shores of the island of Sicily, and also the product of the investigations of Dragendorff and Kubly in 1866, viz.: catharic acid, which is found in several plants. These together with fruit juices, form the compound. It is, in the dose of one to two teaspoonfuls, before breakfast, or in some cases one-half to one drachm, three times a day, a gentle aperient; in larger doses a most efficient and painless purgative.

614 OLIVE STREET.

Notes on Some Instructive Cases of Hernia.

BY JOHN B. ROBERTS, M.D.

Read before the Philadelphia Clinical Society.

HERNIA is a condition often seen and often improperly treated; therefore, I shall not apologize for bringing a few illustrative cases to the attention of the Society, in the hope of stimulating discussion on this important topic.

REDUCTION OF AN IRREDUCIBLE FEMORAL HERNIA OF SEVEN YEARS' STANDING.

Some months ago a woman was sent to me by a medical friend in a neighboring State, suffering with a small, painful tumor in the right groin, which had appeared seven years previously, while she was lifting a heavy weight. The tumor had never been "pushed back," and had of late increased somewhat in size. For its treatment she had recently bought a truss, but could not wear it. When seen by me, the hernia was the size of a small hen's-egg, was somewhat painful when handled, and occupied the situation of the femoral ring. The truss she brought with her was one for inguinal hernia, and gave pain by pressing on the tumor. After reduction of the hernia was accomplished, I found, as was to be expected, that the truss-pad did not cover the opening through which the hernia escaped.

I placed her in the recumbent position, in my office, and without difficulty succeeded in reducing the entire hernial protrusion by first pulling the tumor downward, in a direction toward the knee, and then pushing backward, toward the bed. No anæsthesia was employed. A truss made with an inguinal hernia pad, and a band passing around the perineum from the pad to the back of the truss-spring, seemed to retain the intestine securely within the abdomen. As the patient has not applied for further treatment, I presume that she has had no special inconvenience since.

It certainly is strange that a hernia which had never been returned since its appearance seven years previously should be so readily reduced. Attempts to reduce it had, according to her statement, been previously made, but I know not how often. After I replaced the gut, which I did several times during her stay in the city, I could put the tip of my finger into the femoral ring, thus showing that the reduction was complete. I am inclined to believe that she had a small, direct inguinal hernia in addition to the femoral hernia, for, after reducing the femoral hernia, which caused the main bulk of the tumor, a small tumefaction was still left, which could be made to disappear by pressure toward the external inguinal ring. On the other hand, I thought I was able to push back this upper part of the mass and hold my finger in the inguinal ring, without affecting the femoral hernia which certainly existed below.

This occurrence of double hernia on the same side is often, I think, overlooked in hurried examinations.

IRREDUCIBLE INCOMPLETE HERNIA.

A man of about 77 years, who had a reducible hernia of the right side, sent for surgical aid because he noticed a small swelling in the left groin which he could not reduce. He told me that he formerly had left-side hernia, but had been cured by wearing a truss. He was anxious, because the right hernia had once become strangulated and required manipulation by a physician to reduce it. I saw him late in the afternoon. He lay in bed, with slight abdominal uneasiness, but had had no vomiting, and during the day had had an evacuation of the bowels. The abdominal wall was thin, and above Poupart's ligament on the left side I could feel within the wall a tumor the size of a small black walnut. On coughing, distinct succession was felt in the tumor, which protruded little or none through the external inguinal ring. The tumor, which was tympanitic, was evidently an oblique inguinal hernia, which had not traversed the entire length of the inguinal canal.

Under ether I attempted taxis; but, though I heard some gurgling in the belly during my manipulations, I felt no distinct slipping of the hernia into the abdominal cavity. The tumor, however, seemed smaller, and by invaginating the scrotum I could introduce my finger half way up the inguinal canal. I concluded that he had previously had a small, incomplete hernia, which had passed unnoticed; and that a sudden increase, with some attending pain, had called his attention to the groin on this occasion.

Accordingly, I prescribed a little morphia and recommended quiet in bed. When I visited him next day, the tumor was entirely gone; and he reported that shortly after his recovery from ether, pressure by his own fingers easily caused the protrusion to disappear. Some tenderness still remained. He was told to stay in bed two days and then obtain a truss. I have not seen him since.

RECOVERY FROM STRANGULATED HERNIA AFTER REFUSAL OF OPERATION.

Two or three years ago Dr. J. C. DaCosta requested me to see a man who had had left-side hernia for about four years, which was now, and had been for many months, irreducible. For two days and a half the patient had had no stool, and had been complaining of pain referable to the hernial and to the umbilical region. Dr. DaCosta had attempted taxis, but failing, had given castor oil, which was vomited without inducing an action from the rectum. An enema was ordered and a subcutaneous injection of morphia given; after which he called me to meet him in consultation. When we saw the patient, he complained of no pain. I was not able to get any accurate history of the case from the man himself or his family, but he had a hernia the size of a black walnut, elongated horizontally, lying apparently below Poupart's ligament. I was unable to determine to my satisfaction whether it was a direct inguinal or a femoral hernia. Tonics under ether failed to reduce the hernia, and as herniotomy, though strongly urged by Dr. DaCosta and myself, was refused, opium and belladonna were administered and ice applied to the tumor.

I did not see the patient again, but was informed, two days later, that abdominal tenderness was somewhat more marked, though there was no pain except on pressure. No action of the bowels had occurred. When I saw the attending physician several weeks after, he said the patient had recovered without showing any further unfavorable symptoms. The hernial tumor, of course, remained.

In this instance the unfavorable prognosis made by me was unsustained by the history of the case. Whether strangulation of a small portion of an old hernia was relieved by the manipulative efforts made by Dr. DaCosta before my visit, or by our joint action, or whether actual strangulation never existed, I was unable to determine. The history, indefinite as it was, and the symptoms, justified resort to operation; because of the well-known danger of operative delay in strangulated hernia. In all similar cases I should still advocate exploratory incision.

HERNIOTOMY FOR STRANGULATED FEMORAL HERNIA IN A PARALYTIC.

A feeble woman, aged about 60 years, and almost helpless from cerebro-spinal sclerosis, had had for many years hernia in both groins, and wore a truss. The daughter, who had to feed the patient and wait upon her, on account of her paralytic condition, was able to reduce the hernial protrusions when they appeared. On August 18, 1882, at 9 A. M., the hernia at the right femoral ring became irreducible after protrusion. The bowels were opened during the day and there was nausea but no vomiting. She seemed, when seen in the evening, to have considerable abdominal pain, but her mental condition and inability to articulate plainly made the obtaining of an accurate history difficult. The tumor, which was the size of a very small apple, was firmly fixed and could not be reduced. After futile efforts at reduction, under ether, I made, about eleven hours after strangulation, an incision, and tore through the coverings with forceps and fingers until I reached the sac. Then I stretched Gimbernat's ligament by forcing my finger tip into the canal, but the hernia was still irreducible, showing that the constriction was probably in the neck of the sac. After sweeping my finger around the neck of the sac and detaching it from the surrounding tissues, I was able to overcome the obstruction to replacement, and easily pushed the gut into the abdominal cavity. The sac was, as is seen, not opened. I believe that I stretched or pulled apart some pleatings or folds at the neck of the sac, and thus liberated the intestine. After pushing the sac also back into the abdomen, the wound was washed with carbolized water and sutures applied. One of the sutures was a very deep one.

No ligatures were needed. The wound healed promptly, with but a single drop of pus. The patient's return to her usual condition was delayed, however, by the occurrence of troublesome diarrhœa.

About eighteen months afterward I saw her. There was then a small hernia at the old site, for which she wore a truss. On the left side I found that the hernial tumor then existing consisted of a large inguinal and a small femoral protrusion. She wore a truss for this tumor, but it did not retain the intestine within the abdomen; but her inability to walk, because of her paralytic state, rendered the wearing of a truss not so essential as in an active person.

I might report other cases of hernia, in which I have seen more or less unusual features; for example, a case of herniotomy in a child of six weeks, which I recently saw in consultation with Dr. Steinbach, who operated; or that of a woman with exceedingly large inguinal hernia; but for my purpose of exciting discussion, the cases reported will be sufficient.

I desire to emphasize the following points:

That inguinal and femoral hernia will be found at the same time on the same side much oftener than is supposed.

That it is safer to operate in cases of suspected strangulation than to postpone operation beyond twelve hours.

That herniotomy is attended with little hemorrhage, and if done antiseptically, is accomplished by rapid union and little risk of life.—*The Polyclinic.*

St. Louis Obstetrical and Gynecological Society.

THURSDAY, January 15, the regular meeting of this Society was held at the house of Dr. Papin, President Dr. McPheeters in the chair. The regular paper of the evening was read by Dr. Prewitt on "Dermoid Cysts of the Ovary."

Two cases were related, the first, occurring in the practice of Dr. Briggs, was one in which the diagnosis was made by a single hair, which was detected in the fluid which was withdrawn in a second aspiration, the first having yielded nothing but a caseous mass. An inflammatory condition supervened, and, as strong indications of adhesion and suppuration appeared, an incision was made into the tumor, a large quantity of pus was evacuated, mixed with caseous matter, filth and hair. The incision was kept open, and the cavity washed out daily during a period of almost four weeks, and the patient was finally discharged, much improved. Has enjoyed better health since.

The second, also a dermoid cyst of the right ovary, in a married lady who had had several children, caused no annoyance, and remained unheeded until Dr. Prewitt's advice was sought, on account of a violent attack of peritonitis. This, as the examination revealed, emanated from the necrosed pedicle, and soon proved fatal; no surgical interference was attempted.

The *post-mortem* examination revealed a dermoid cyst of the size of a child's head, with part of the slender, congested and necrosed pedicle lying entirely detached within the abdominal cavity. The long, slender pedicle had evidently permitted the tumor to move about freely; and twisting of the pedicle, constriction of the vessels, and necrosis resulted; peritonitis and death speedily followed.

Dr. Prewitt discussed at length the various theories regarding the origin of these peculiar formations, from the belief in the fetus in feto, to the most modern and generally accepted theory of an inversion of the outer and middle layer of the germ, the latter being the one to which he adhered.

The subject was thoroughly discussed by Drs. Gregory, Papin, Ford and Englemann. Dr. Gregory referred to the famous case of Velpeau, of a dermoid cyst in the testicle, as an evidence of the wonderful diagnostic powers of that master. This was one of the first cases on record; one of the first that called attention to the subject. Though with the knowledge of to-day, the diagnosis would have appeared simple, from the fact that several hairs protruded through a fistulous opening, at that time it was a marvelous evidence of the acuteness of that surgeon, and a striking case of diagnosis by exclusion. Many eminent physicians had seen the case, the diagnosis of each had been carefully noted, as Dr. Papin related from reminiscence of Velpeau's lectures, and after repeated examinations and carefully studying the subject, Velpeau excluded every diagnosis which had been made, and arrived at a proper conclusion. To us the diagnosis seems easy with such knowledge of the subject as we have now attained.

The fact that these dermoid cysts appear in other parts of the body, was noted as strong evidence against the possibility of the dermoid cyst resulting from the development of an ovule, self-impregnation as it were. Dr. Prewitt, however, called attention to the fact that dermoid cysts upon the brow, in the mediastinum, and in other parts of the body, were almost invariably different in contents from those in the ovary; less perfect, with no bone formation. This would give some credit to the theory of ovular development. It was claimed, however, that in the mediastinum, bone formation was also found; that these cysts are the result of an inversion and incarnation of some of the embryonic cells of the outer and middle layers, in addition to other reasons, seems probable from the fact that they are almost invariably near the median line. Dr. Ford laid stress upon the developmental powers of the female sexual organs, claiming that a reserve force was there found which did not exist elsewhere; the male was larger, better developed, mentally and physically, and this excess of power and vitality which the female form seemed to lack, was deposited in her sexual organs. A certain force of this kind also exists in the male sexual organs, and when these dermoid cysts occur in males, they are most apt to be found in the testicles. In females they occur more commonly, and most especially in the ovaries, those organs which contain the greatest amount of this reserve force, this developmental power. In evidence of this peculiar character of the female sexual organs, Dr. Ford called attention to the wonderful phenomenon displayed in the regeneration of the mucous membrane of the uterus, its development and shrinkage in menstruation, and its complete re-formation after having been shed in labor.

Dr. Engelmann expressed himself as coinciding both with the views of Dr. Prewitt and Dr. Ford; that the dermoid cyst resulted from the incarceration of the germinal elements of the outer and middle layer, and, as Dr. Ford had so well expressed it, the reason of their frequent development in the ovary of the female, lay in the fact of the unusual vitality and developmental force of these organs; less frequently they appear in the scrotum of the male; but it is in the sexual organs that this force is found most marked in the female. The same embryonic cells, should they be displaced in other parts, would not develop.

COCAINE IN GYNECOLOGICAL PRACTICE.

Dr. Engelmann related his successful experiments with cocaine, which had served an admirable purpose in allaying the pains of dysmenorrhea, the attacks of vaginismus, and in reducing hyperesthesia, so as to admit of the painless introduction of instruments into the vagina and uterus.

Dr. Papin had used it successfully in allaying intense suffering from a decayed tooth ; in relieving the pain in an incision in carbuncle, and in making the stretching of the sphincter muscle for the relief of fissure in ano, almost painless. He had applied the four per cent. solution upon a pledget of cotton to the mucous membrane of the rectum, introduced his thumbs without giving the patient any pain in the anus whatever, and stretched the part, thus succeeding in tearing the muscle with but little suffering to the patient.

Dr. Prewitt stated that he had in vain applied it to the surface of the skin before opening a mammary abscess, painting it repeatedly, but, though the pain of the incision seemed somewhat dulled, the result was extremely unsatisfactory. He had also repeatedly injected several drops over the site of an intense neuralgic pain in the lower maxilla, for which the nerve had been previously resected without any effect whatsoever. He thought that its application was limited to the mucous membranes. After some further discussion upon the wonderful results recently attained by the application of this drug to the mucous membranes, the Society adjourned.

Oleate of Cocaine in Ophthalmic Practice.

BY CHARLES J. LUNDY, A. M., M. D., DETROIT.

Professor of Diseases of the Eye, Ear, and Throat in the Michigan College of Medicine.

ALTHOUGH much has already been written regarding the use of cocaine as a local anæsthetic, yet little has been said about its therapeutic uses. So far as I am aware, what has been published regarding this valuable drug relates entirely to the hydrochlorate, for I have seen no mention of other preparations. The object of this paper is to call attention to the oleate of cocaine[1] which, in my opinion, possesses many advantages over the hydrochlorate.

Through the kindness of Mr. Clarence G. Stone, I obtained some specimens of McKesson & Robbins's oleate of cocaine, with which I have conducted numerous experiments upon the healthy eye, and have also tested the therapeutic value of the oleate in a considerable number of cases of eye disease. Among the advantages which the oleate of cocaine possesses over the hydrochlorate, the important one of economy may be mentioned. As will be seen, a much smaller quantity will produce the desired result than when the aqueous solution of the hydrochlorate is employed. This may, in part, be accounted for by the fact that it is not diluted with and washed out by the tears. Neither does it it so readily flow down the lachrymal passage. The great expense of cocaine will prove a barrier to its more general employment; therefore any preparation of the drug which will lessen the expense, and at the same time afford all or nearly all of its advantages, must be a *desideratum*.

From experiments made upon healthy eyes, with a five-per-cent. preparation of the oleate, I find its anæsthetic effects are much greater and its action is more rapid than those obtained by using a like quantity of the hydrochlorate. Within two minutes after one drop of a five-per-cent. preparation of the oleate was placed in the conjunctival sac, sensibility of the cornea and conjunctiva was nearly lost. In three minutes the cornea and conjunctiva were completely anæsthetized. The conjunctiva could be seized with a sharp fixation forceps, and the eye rotated forcibly from side to side, without producing any pain or discomfort whatsoever. The patient felt the stretching of the muscles when the eye was rotated far to the opposite side—nothing more. A sharp instrument pressed against the cornea could not be felt in the slightest. Where only a single drop of the five-per-cent. preparation was employed, the complete anæsthesia was of but short duration. After the lapse of seven minutes the conjunctiva and cornea showed evidence of returning sensibility, and in fifteen minutes sensation in these parts was nearly or quite normal. In eight minutes after one drop was used, the pupil was perceptibly enlarged, and in twelve minutes it was widely dilated, but not wholly irresponsive to light. In ten minutes there was slight failure of accommodation. In fifteen minutes the failure of the accommodative power was more noticeable, but it was by no means very marked. The effects on the pupil lasted several hours.

From these observations it will be seen that it is an important mydriatic. In many cases it will be desirable to dilate the pupil in order that a thorough ophthalmoscopic examination may be made. To-day cocaine is the mydriatic which gives the most satisfaction where dilation of the pupil for this purpose is desired, for, while it dilates the pupil quickly and fully, it does not seriously interfere with the patient's ability to focus his eye for near objects. Cocaine possesses another advantage over other mydriatics in this connection, and that is, it renders the eye less sensitive to light, which is an important point where hyperæsthesia of the retina exists.

In experiments where one drop was placed in the conjunctival sac, every three minutes, till four or five drops were used, I observed that it exerted a considerable influence over the ciliary muscle. Patients who could read Jäger No. 1 at five inches before the use of the oleate, could not see either No. 1 or No. 2 of Jäger's type after the lapse of fifteen or twenty minutes. So marked an effect upon the muscle of accommodation I have not witnessed from the very free use of the hydrochlorate, although my experiments with the latter were not made with a solution stronger than four per cent. The contractile power of the ciliary muscle returned completely after a lapse of two or three hours, when several drops of the oleate had been employed at intervals of three minutes. When it was used in this manner the pupil did not regain its normal size for twelve to fifteen hours. As one might naturally expect, slight differences were observed regarding its effect in different subjects, but the foregoing results are an average obtained from several experiments.

As a therapeutic agent, I think the oleate of cocaine will find favor with the profession, and especially among ophthalmic surgeons. Ointments are used for various affections of the eyes, and the oleate can be used in combination with these or by itself. In a large number of cases occurring in ophthalmic practice it can be used as an adjuvant to other remedies. I have thus employed it in several cases, and I have no hesitation in saying that these cases have done better than similar cases have done where the oleate was not employed. I have used it in five cases of granular ophthalmia with ulceration of the cornea. In three of these cases there was a considerable degree of blepharospasm and photophobia. The results were highly gratifying. In all cases of granular ophthalmia where ulceration of the cornea exists, and more especially where there is much spasm of the lid, the roughened, granular conjunctiva rubs and irritates the cornea and aggravates the trouble, and delays or altogether prevents the process of repair in the corneal ulcer. Ophthalmic surgeons are so fully aware of the mischief arising from this source, that many of them resort to thel ittle operation of cutting the outer canthus, thus weakening the power of the orbicularis and limiting the injurious effects of its spasmodic contraction. Now, cocaine relieves the blepharospasm as no other remedy will, and the rasping action of the lid is reduced to a minimum by its employment. Then, again, the use of cocaine, either before or immediately after the application of an astringent to the conjunctiva, prevents all pain, and limits the reaction which always follows such applications. And this, let it be remembered, is an important point in the treatment of granular lids where corneal ulcers exist as a complication.—*N. Y. Medical Journal.*

The Gradual Decrease of the Population-Rate of France.

THIS subject, on which we commented last week, continues to occupy the attention of the Académie de Médicine. M. Rochard stated that, if the rate of increase of the population of France continued to diminish in the same proportion as it had done during the present century, there would be no increase at all at the beginning of the twentieth century. France does not compare favorably with other nations in respect of the rate of augmentation of the population. In England the population grows at the rate of 13 per 1,000 every year; in Germany the rate is 10 per 1,000; whilst the Americans have increased tenfold since the beginning of the century. At the present time France constitutes the tenth part of the population of Europe, whilst two centuries ago it represented a third. If this numerical deterioration continue, the French people will number at the beginning of the next century only a fifteenth of the European population, and will fall into the position of one of the small States, and be no longer recognizable as one of the Powers. When the population of a country begins to decrease, we must suppose either that there is an excessive mortality, or else that the birth-rate is diminished. Now, the death-rate in France is asserted to be even lower than that of the majority of European countries or States; consequently the comparative depopulation of France must be due to decrease in the number of births. In that country the number of infants in proportion to adults is less than in any other European nation, excepting Ireland. M. Lunier accepted M. Rochard's principal proposition, that the progressive diminution of the rate of increase of the population was the outcome of a voluntary abatement of fecundity to be observed in all classes of society. He averred that abortion is very commonly practiced in England and America; whilst in France "un avortement en quelque sorte primitif" is also much in vogue, for in certain parts the chemists supply what are known as "pessaires de fond," which are vaunted as effective preventives of conception. This practice is said to have augmented the number of uterine affections. It is asserted that in France a relation pertains between the number of stillbirths and that of infanticides. Many infants declared to be stillborn probably die after birth. The number of known cases of infanticide is certainly not less than 7,000 to 8,000 a year, and it is probable that a fiftieth of all cases of stillbirth are cases of infanticide. M. LeFort, in his remarks on this question, said that the number of illegitimate births had largely increased, not only in France, but in all Europe. In London the number of illegitimate children amounts to 5 per cent. of the total number of children born in wedlock.—*Lancet, of London.*

The Report of the English Cholera Commission.

THE following is the text of the preliminary report presented by Drs. E. Klein and Heneage Gibbs to the Surgeon-General and Sanitary Commissioner with the Government of India:

We have the honor to report that the investigations which we have hitherto carried on in Bombay and Calcutta have yielded the following results:

1. The statement of Koch that "comma-bacilli" are present only in the intestines of persons suffering from or dead of cholera is not in accordance with the facts, since "comma-bacilli" occur also in other diseases of the intestines—*e. g.*, epidemic diarrhœa, dysentery, and in intestinal catarrh associated with phthisis.

2. The "comma-bacilli" in acute typical cases of cholera are by no means present in such numbers and with such frequency as to justify Koch's statement that "the ileum contains almost a pure cultivation of comma-bacilli."

3. The "comma-bacilli" are not present in the tissue of the intestine or elsewhere.

4. The "comma-bacilli" in artificial cultivations, carried out by one of us (E. K.), do not behave in any way differently from other putrefactive organisms.

5. Mucous-flakes of the ileum, taken out soon after death from typical acute cholera, contain numerous mucous corpuscles, many of them filled with peculiar minute straight bacilli. The same bacilli occur also outside the mucous corpuscles. They are never missed even when the "comma-bacilli" are.

6. These small bacilli have been cultivated by one of us (E. K.), and they do not behave differently from putrefactive organisms. These small bacilli are not present in the tissues of the intestine or any other tissue.

7. No bacteria of any kind, and no organisms of known form and character, occur in the blood or any other tissue.

8. A good many experiments have been carried out by one of us (E. K.), with the following results: (*a*) Mice, rats, cats and monkeys were fed with rice-water stools, with vomit, with mucous-flakes of the ileum, fresh, and after having been kept for twenty-four to forty-eight hours. The animals remained normal. (*b*) Inoculations with recent and old cultivations of "comma-bacilli," and the small straight bacilli, as well as with mucous flakes, were made into the subcutaneous tissue, into the peritoneal cavity, into the jugular vein, and into the cavity of the small and large intestine of rabbits, cats and monkeys; but the animals remained perfectly well and normal.

9. The material which we have had hitherto at our disposal has been very good and abundant, and, as far as the microscopic work goes, we do not think we shall require any more material.

We, therefore, propose concluding our inquiry by the beginning of December, and hope soon after to return to England.—*Med. Times and Gazette*, January 3, 1885.

Spaying of Cows to Improve Their Milk.

THE following, taken from *Gaillard's Journal*, states facts that we have read and heard frequently from well authenticated sources. We deem the matter of interest and value to the profession, and would like to hear from our readers whether any of them have practiced this surgical procedure on their cows; or, on the other hand, we hope it may encourage some to give the matter a trial. A report of the observations made would be a valuable addition to our knowledge.

"It is a well-known fact that the quality of the cow's milk changes with the time lapsing after she has calved. On first calving it is decidedly laxative. Later on it loses this property, and at the end of a year the milk of a farrow cow is very astringent. The milk of the cow with calf also gradually changes with the period of gestation, becoming increasingly watery and having a limey taste. It is evident, therefore, that a child fed on 'one cow's milk' must, during the course of eighteen months, receive quite a variety of food, and that at times during this period this food is not strictly of a physiological nature. In the supply of our cities, moreover, no care, of course, being taken to keep these different varieties separate, the milk must be of a very heterogeneous nature. To obviate the dangers which are associated with this variation in the quality of milk, Mr. Lloyd F. Abbott advises (*Boston Medical and Surgical Journal*) the spaying of milch cows. The results which he claims follow the operation are: 1. Increase in the quantity of milk. 2. Constancy of quality. 3. Improved quality of milk. 4. Decrease in cost of keeping cow. 5. Prolongation of the milk-giving period. 6. Increased readiness of fattening the animal and improved quality of flesh. He spayed a cow in November, 1880, at which time she was giving ten and a half quarts daily. At the date of writing, February 27, 1884, the cow was still milking and giving nine and a half quarts a day, and of better quality than that given by a cow having her ovaries. Dr. Mecuen, who took part in the discussion of Mr. Abbott's paper, stated that one cow from which the ovaries were removed has produced milk continuously for eleven years, and in this entire period has fallen off only three pints."—*Weekly Review.*

Extirpation of the Bladder for Sarcoma.

During the past two years several papers have appeared in the German medical journals, in which, through experiments upon dogs, it was shown that the urinary bladder might be successfully removed. As the natural sequence of these vivisections, we have now to record the extension of the operation to the human subject by Sonnenburg, of Berlin, which is fully described in the *Berliner klinische Wochenschrift*, No. 52, 1884.

The patient was a woman, 60 years of age, on the anterior wall of whose bladder digital exploration disclosed what appeared to be a circumscribed, non-ulcerated carcinoma. As the suffering was great, and as she was losing much blood, it was determined to remove the tumor along with the adjacent tissues of the bladder, and close the wound with sutures. The organ having been opened, as in epicystotomy, it was discovered that the limits of the neoplasm were not sharply circumscribed, so that for its complete removal the entire viscus, except a small portion of its posterior wall, the trigone, with the openings of the ureters, and the sphincter, was excised. During the operation the peritoneal cavity was freely opened, but the edges of the wound in that membrane were carefully brought together with sutures. Drainage-tubes were brought through the urethra and the abdominal incision, thereby providing for the thorough escape of the urine and the secretions of the wound, and, at the expiration of three weeks, the patient was progressing satisfactorily, the wound was granulated nicely, and there was every prospect of ultimate recovery.

The case thus briefly recorded shows that the greater portion of the urinary bladder may be extirpated with a fair prospect of temporary success. In view, however, of the probable recurrence of the disease, and of the immediate risks to which the aged patient was subjected, we can not congratulate the operator upon his daring performance—a performance which may, in the opinion of some surgeons, redound to his credit, but which we regard as being utterly unjustifiable. There is a limit to operative procedures in malignant disease, and surely the limit was reached in this case, the infiltration of the walls of the bladder having progressed to an extent which should have suggested the establishment of a vesico-vaginal fistula, to provide for the free escape of urine, and thereby to do away with the periodical filling and emptying of the bladder, rather than the harsh procedure to which Sonnenburg resorted. Colpocystotomy and the formation of a permanent fistule would certainly have mitigated the suffering, and arrested, partially, at least, the bleeding. To fulfill these indications should have been the aim of operative interference; to have extirpated nearly the entire bladder was as useless as it was unsurgical.—*Philadelphia News.*

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Constipation.

DIET must be attended to, and errors, such as have been referred to, rectified. The meals should be taken at regular intervals, they should be varied in character daily, a sufficient quantity of fresh vegetables and fruits should be included at *two* meals daily, the method of cooking should be carefully looked after, and not trusted to the kitchen servants, who seldom know anything about the proper preparation of food, and care less, except for their own selections. Half the American dyspepsia comes from the neglect of the mistress to see that her servants understand and carefully perform their duties in the kitchen. This is especially true of bread; and pure, light, enjoyable, wholesome home-made bread should be the rule, not the exception. If you prefer alum, potatoes, and two grades of flour in your bread, you can do this as well as the baker, and save him the necessary lying incident to keeping his trade going. A light repast of acid or sub-acid fruits before retiring, is useful; late suppers injure people not *as* suppers, but because of the ponderosity of the viands, viz., lobster salad, fried oysters, deviled crabs, and other inventions of the arch fiend. A little hot soup made from any good beef extract, with raw tomato (or its juice), which is an excellent esculent, will hurt no one, and help many. Invalids should never go to bed hungry; I even wake up some of my patients at 1 or 2 A. M., and make them partake of light refreshment. It is *half a day* from the usual teatime till breakfast—too long a stretch for weak stomachs which can not take enough on board in the evening to supply good blood until the morning repast.

Next as to habit. It is the bounden duty of each man, woman and child *outside* an insane asylum, to appoint a time for a daily visit to the closet, and *to keep* that appointment inviolably. *Inside* the asylum it is the business of a proper attendant to compel the observance of this rule by patients, and in my limited knowledge of such retreats, no one attends to this point—the patients, if they have sense enough left, go as they please, and if not, they go as compelled by an outraged rectum, closet or no closet. A good deal of the filthy habits in these institutions is not from pure "cursedness" on the part of the unfortunates, but from lack of intelligent supervision on the part of their keepers.

Just after the stimulus of breakfast is a good time for the purpose, and if at first the bowel is stubborn, wait until next day—same time and place. Don't let your patients *strain* in their effort, and don't let them go later in the day, having failed in the morning, if the desire occurs—*wait until the appointed hour to-morrow.* The bowel is capable of education, and when persistently solicited, it learns to obey your behest, and a liberal share of cases will yield to this simple methodical persuasion.

Some cases, of course, demand therapeutic assistance, and this may be either medicinal (drugs) or mechanical (massage and electricity). Placebos are now and then efficacious, and a good one is one or two drops of tr. nux vomica in a little water at bedtime. If the liver is sluggish, we may advise the succus taraxacum in full doses two or three times daily, which is efficient, if a good article, upon the hepatic and intestinal secretory action alike. I often order, in people with yellow parchment-like skin, the annexed :

℞	Sodii sulphas	℥j.
	Sodii bicarb.	℈ij
	Sodii bromid.	℈j.
	Aqua acid carbonic . . .	Oiv.

M. Keep in syphon bottles, and direct a wine-glassful at bedtime, or morning and night.

Weak though this artificial mineral water may seem, it has gained me much thanks and credit. It must be long continued in such cases.

Where stubborn livers won't work, I have had excellent results from the following:—

℞. Cinchonidia sulphatis.
Euonymin.
Irisin.
Leptandrin.
Juglandin, ... āā℥ss.
Podophyllin.
Ext. belladonna.
Ext. nucis vomica.
Ext. hyoscyamus, ... āāgr.x.
M. In pil. No. 60 div.
Sig. One or two at bedtime.

[A prescription we often make in chronic constipation is as follows:

℞.	Aloes socot,	℈iv.
	Sodæ bicarb,	ʒij
	Spts. lav. 6o,	℥ss.
	Av. bestill,	℥iiss.

Sig. Teaspoonful once or twice daily.—Ed. News.]

The above is my only long prescription, for I get better results from one or two articles only as a rule, but on general principles the cholagogue here given is admirable, and many a professional friend has thanked me for it. A manufacturing house which introduced it into their list of formulas without my knowledge, sends out a large quantity of this combination. From a relative in India I learn that the prescriptions given act very nicely, and those who know any thing about the liver troubles of hot climates will take this testimony as of value.

Chloride of ammonium in large doses is relied on in the Madras, Bengal and Scinde presidencies as a cholagogue, testimony to its efficiency coming from able army surgeons; but in our latitude it does not with me, or those of my friends who have tried it, do well. Arsenic in minute doses with belladonna sometimes fits a case, and arsenic with ipecacuanha does well in others. Mercury in any form, or in any quantity, however small, I detest in constipation. Blue pill at bedtime and salines next morning never cured *chronic* hepatic trouble of any kind, in my opinion, but they have often introduced it where milder measures would have done no harm if they did no good. Torpid or congested liver in constipation is always chronic. To be sure, you can have *acute* hepatic disorder in instances of temporary constipation, but we are not now considering such cases. So much for medicine.

Massage, properly applied, is valuable in torpor of the liver and intestinal muscles. In chosen cases direct the application of a wet cloth (cold) to the abdomen when in the closet every morning, the front and sides being gone over for a moment or two, then either the patient or another person thoroughly kneads the whole abdomen, paying particular attention to the hepatic region and the course of the colon and rectum. After a general rubbing movement, the closed knuckles of both hands are employed in alternating wavelike movement to push the contents of the bowel *upward* from the right iliac fossa *across* the hypogastrium and *down* the line of the descending colon. The whole proceeding is quite simple when once tried, and unless the sufferer is a debilitated invalid, he or she can do it best personally, for the exact amount of pressure required is thus experienced.

The chief difficulty is to get people to try this plan faithfully, for it is no fun at first to go through this manipulation in winter if the ordinary outdoor privy is alone obtainable. Some folks don't see the utility of it, and, as in everything else, unless they appreciate the value of any method, or think they do, they won't persevere. With such philosophers we have to combine such mechanical manœuvres with aqua destillata in five drop doses *ter in die*, or some equally powerful internal remedy, cautioning them as to the risk of a drop or so too much. Very few cases of confirmed constipation will hold out against a *bona fide* trial of massage and regularity of diet and habit.

Electricity is a great helper in bad cases, when combined with the other points named. Faradism is preferable, but it must be accurately applied. The small coils, such as the gaiffe, and those resembling it, are unavailing—they have too high tension and too little penetrating power. The induced current from a coil of thick, heavy wire is needed to overcome the resistance of the abdominal parieties. To gain this we must approximate an equality in theinternal resistance (of the coil) and the external resistance (of the patient's body), which can only be had by rheostatic interposition with powerful inductoriums and currents of derivation. These are not either convenient to use or ordinarily owned by general practitioners, and in my own cabinet apparatus I have eight separate coils, the terminal set being of heavy hard-drawn copper, German silver and platinum wire respectively.

In connection with this point I desire to notice the following extract from an editorial in the *Philadelphia Medical Times* of November 1, 1884, entitled, "A Lesson from the Electrical Exhibition."

"Again, faradic batteries which profess to get divers mysteriously-endowed currents by using a multiplicity of coils made of wires of different sizes, or of different metals, methods of winding, etc., are fraudulent in their claims. There is but one kind of galvanism, and currents can only vary in strength and electro-motive force. Alongside of the highly scientific batteries, dynamos and what not of the exhibition, were medical batteries, asserting practically that there is such a thing as a copper electricity, an iron electricity, a silver electricity, and so on."

I believe that very few of the exhibits of any kind escaped my notice, but I certainly did not see or know of any maker who claimed to exhibit medical batteries constructed as above described—none such were on exhibition at any time—nor do I know of any maker in this country or abroad who produces such coils, and I have on file in my workshop catalogues of every manufacturer known to me—nearly one hundred in all. There *is* but one kind of galvanism, but the inference intended to be conveyed, that there is but *one* kind of induction, is false, as is the direct statement that "currents can only vary in strength and electro-motive force." "Strength" and "electro-motive force" are synonymous terms in electrical nomenclature. Currents vary in many particulars other than in strength, and they vary *because* of the method of winding, the density, the thickness, and material of the wire or tape forming the coil, together with the method and completeness of insulation, as every practical electrician well knows. No one who knows anything of the construction of inductorium apparatus would wind a Ritchie or Rhumkorff in the hap-hazard style of the usual medical faradic coils, neither would one wind differential galvanometers or a rheostatic series in that way. There is such a thing as *quality* of current from induction coils, and the quality, quantity and capacity for *penetrating* power varies with the sectional area of the secondary wire and also with its character as to material used in its construction. There is additionally a vast difference in the *smoothness* of current, according to the method of winding, which is ignored in every trade battery known to me. There is, beside, a notable advantage in employing wire of varying specific resistance in medical coils, just as there is a great advantage in using high electro-motive force in constant batteries in conjunction with a rheostat through derived currents. Further, induction currents from galvano-faradic and magneto-faradic machines differ in many points, however wound. The first has no chemical effect; the latter has, besides the production of uni-direction currents in the one, but not in the other. Practical results are attained by expert electricians which are beyond the reach of those who use crude, imperfect and cheap apparatus, and they would do still better were their coils made under their supervision, and made as the writer has made his own.

Philadelphia Neurological Society.

A CASE OF LOCOMOTOR ATAXIA WITH LOSS OF TEETH AND ALVEOLAR PROCESSES.

THE following anomalous case of locomotor ataxia has been under my care for three months in the Episcopal Hospital. He is now under the care of Dr. Henry M. Fisher, who courteously allows me to use the notes of the case.

Mr. A., æt. 45, a well-marked ataxic for over five years, presents the following history, some points of which seem well worthy of record. Nasal catarrh exists in several members of the family, including himself. During the war he was wounded in the hip and ankle slightly; the wounds healed kindly. He was confined for some time in Libby and Belle Isle Prisons, and since then has never felt strong. He denies having had syphilis. When 39 years of age he began to show the first symptoms of ataxia; these were diplopia, dizziness, and a staggering gait. One and a half years later he began to have lancinating pains in the extremities, and later in the bowels. Five years ago he began to have transient attacks of difficulty of hearing, and this has increased since then until about one year ago, when he became absolutely deaf.

He has always been constipated, and one year ago had slight difficulty in urination. Within the last seven months he has had severe gastric crises. Eyesight good until the last seven or eight months, except during the first year. Four months ago the symptom for which I present the case to-night, first appeared. This was a loosening and a subsequent falling out of the lower wisdom teeth. No pain nor discomfort preceded this, and the teeth were perfectly sound. In fact, he had an uncommonly fine set of teeth. After this his teeth gave him no trouble until about seven months ago, when the same change began in the upper jaw, causing the loss of every tooth except the right first molar, which still remains firm.

The sequence of these events appears to be as follows: First, the teeth loosen, then the gums recede, showing in places the alveolar processes denuded, the teeth then fall or are pulled out by the fingers, and finally the alveolar processes separate in small fragments, with slight suppuration, or are detached in larger pieces. The gum then heals. The largest piece of bone thus separated shows the sockets of three incisor teeth and a portion of the fourth. The teeth show no absorption of their fangs, and are almost without exception perfectly sound. About four months elapse between the loosening of a tooth and the final healing of the gum.

Other points of interest in this case are as follows: the patient is extremely pallid; he has the ataxic gait, although this is not very pronounced. He can not stand with his eyes closed. The knee-jerk is absent, and has been for at least four years. There is no anæsthesia of the feet or legs, and the patient localizes touch fairly; there is, however, some analgesia. There is no retardation of sensation. Examination shows external strabismus of both eyes. Pupils pinpoint for near accommodation, and relax for distant vision; no reaction to light. Ophthalmoscopic examination shows left eye-ground normal, and but slight atrophy of nasal border of right disk. His sense of smell and of taste is good. There are no lesions in any of his joints to be detected.

Dr. Lambert Ott presented a case of

LOCOMOTOR ATAXIA WITH CHARCOT'S JOINTS.

S. H., aged 45 years, a traveling salesman. In 1866 he contracted chancre, no secondary symptoms following. In May, 1881, his present disease began with shooting pains in limbs and unsteadiness of gait. In November, 1883, I first saw him and diagnosticated his condition as locomotor ataxia. At the present time there is very little missing that goes to make up the symptom group of this disease. In December, 1883, about two and a half years after the beginning of his trouble, he noticed a swelling on his left ankle. In the morning it seemed to be less, and in the evening it had increased to such an extent as to cause difficulty in taking off his boot. He had no pain, no impediment in using the joint, and had it not been for the swelling he would not have taken any notice of it. He thinks the swelling reached its maximum in two weeks, and there has been no great variation since, except that in the evening it is slightly increased. At present his foot is moved normally, but when the back of the leg is grasped and extreme flexion made, crepitation is imparted to the hand; the swelling is confined to the inner and dorsal surfaces of the ankle joint, and feels bony, The joint measures in circumference one and a half inches, the leg at midcalf one-half inch more than the opposite limb. There is no pain or tenderness on pressure or rough usage. He has been under treatment fourteen months, and has taken corrosive sublimate and chloride of gold and sodium. The electrical treatment at first was central galvanization and general faradization, and latterly the metallic brush, with the rapidly interrupted faradic current, with marked improvement.

Dr. W. W. Keen then read a note on the

COMPARATIVE EFFECTS OF ACTIVE VOLUNTARY EXERCISE AND OF PASSIVE EXERCISE BY MASSAGE, ON THE PRODUCTION OF ALBUMINURIA,

in which he called attention to one point of value in the use of massage, heretofore unrecognized.

A patient consulted him for relief from severe, constant, and long-continued pains in the calves of his legs. During the preceding year he had walked, as a matter of exercise, nearly 2,000 miles, and during the year before that had traveled around the world, making long rides and walks a marked feature of his trip. He found that he had an albuminuria, of from three to ten or fifteen per cent., which was curiously dependent upon exercise. This he tested in the following way: He put him in bed for three days, and examined specimens of his urine passed at different times in the twenty-four hours. No albumen appeared. Immediately after the last examination he dressed and walked a measured mile. Immediately on returning, he passed water which had about five per cent. of albumen. One hour later, it had still a trace; two hours after the walk it was free. The next morning the urine was still free, but that passed after walking a mile had again about five per cent. of albumen. A few days latter, massage was applied thoroughly for forty to fifty minutes by a most competent rubber. The urine immediately before and immediately after the massage was free from albumen.

This is a striking addition to Dr. Weir Mitchell's observations as to the resulting tissue-changes induced by massage, and especially shows its value as a means of passive exercise without deleterious effects through nervous exhaustion. Dr. Keen believed the value of the massage to lie in the resulting stimulation to the muscular tissue, and the promotion of its nutrition without such changes of blood pressure and vasor-motor tonus in the muscular coat of the vessels, as induced the curious albuminuria after voluntary exercise above noted. The very probable nervous origin of albuminuria, as shown by its frequency in cases of long-continued nervous strain, and by the researches of DaCosta and Longstreth, would seem, also, to have a new confirmation by this observation.

Dr. Keen's attention has been called by Dr. Mitchell to an article on "Albuminuria as a Symptom," by the late Dr. Calvin Ellis, in the *Boston Medical and Surgical Journal*, 1880, vol. xxv. p. 388. The following somewhat analogous cases are referred to by him: In one case (Dukes: "The Albuminuria of Adolescents," *British Medical Journal*, Nov. 30, 1878, p. 794), a young man's urine was normal when in bed. On rising and taking milk only, it would continue so; but after eating a piece of bread, the albumen would appear. As he improved while lying in bed, meat could be eaten without any change in the urine. While this would look to digestive changes as a cause, the so-called post-cibal albuminuria, the following cases are more positive evidences of the effects of the exertion in the production of albuminuria.

Edlefsen (*Berl. klin. Wochen.*, Sept. 22, 1879) noticed in three healthy but anæmic men transient albuminuria after exertion. Leube (*Virchow's Archiv*, v. 72, p. 145) examamined the urine of a large number of healthy soldiers in the morning, and found it normal, but after a five hours' march or severe exercise, in June, July and August, with a temperature of 54° to 77° F., it contained albuminuria in sixteen per cent., though the amount was small and never exceeded one per cent., and there were neither casts nor blood corpuscles. This could not be detected at a later examination, between 4 and 6 P. M. The same was seen under similar circumstances in army officers in connection with scanty urine, and also in nervous persons. (Fürbinger, *Zeitsch. f. klin. Med.*, 1, p. 345.) "It is most natural to suppose that its presence was owing either to some variation in the blood pressure or to some change in the vessels. The rapidity of its appearance and disappearance makes it extremely improbable that there was any change in the vessels, and we are left with a variation of the blood pressure. The view that the last might be operative seems to be supported by the statement of Ranke, that the blood accumulates in the muscles of a healthy man during exertion, while it diminishes in the organs which are at rest."

Dr. Keen stated that in the case he reported, in the course of a year the albumen has become constant, though his exercise has been restricted to the last degree consistent with health; but the amount is never over a faint trace. At no time have any casts or blood been discovered. A prolonged sea voyage is now being tried as a means of cure.

The Prevalence of Arsenic in Articles of Domestic Use.

In 1872 Dr. F. W. Draper, of Boston, made a most exhaustive investigation of the "Evil Effects of the Use of Arsenic in Certain Green Colors," and published his results in the annual report of the Massachusetts State Board of Health. In a supplement to the last annual report of the same Board, Professor Edward S. Wood takes up the subject again, and adds numerous important facts regarding it.

Professor Wood shows that arsenic is found in many other colors than green, and that poisonous pigments are much more extensively used than has been supposed. Briefly, the principal substances containing arsenic are as follows:—

1. Wall-papers. The blue and red contain arsenic oftener than the green, and even the white may have arsenic in the sizing or paste. The amount in thirty-six specimens examined averages about two or three grains (a lethal dose) to the square yard, and ranges from .59 grain to 40.7 grains per square yard.

2. "Glazed and plated" papers, used in wrapping confectionery, covering boxes, in the manufacture of tickets and playing cards, and used by children in kindergarten schools. These papers may contain all the way from one to forty grains of arsenious acid to the square foot.

3. Articles of clothing, such as green tarlatan, Foulard cambric; red, magenta, and brown stockings, green and maroon flannel, bed-hangings and paper collars. A dress examined was found to have .291 gramme of arsenious acid to the square metre, and a paper collar had ten grains of the same poison. Cretonnes, lambrequins and chintz have been found to contain arsenic.

4. Articles of food and domestic use. Confectionery. The only pigment which has caused poisoning here is the

green, and there are but rare instances of even this character, owing to the small amount of the substance required to produce the coloring. Bibulous fly-paper contains arsenic, as do certain moth-exterminators, rat-killers, and Paris green and London purple used against potato-bugs.

We regret that Professor Wood has not been able to give some general idea as to the absolute frequency of arsenical poisoning from the sources he has described.

So far as one can judge from facts already collected, it is only wall-paper which practically does much harm, and even here most of the reported cases are from foreign observers. Among forty-two cases cited, thirty-one are those of chronic arsenical poisoning from wall-papers. Cases are also reported illustrating local or general poisoning from playing cards, gloves, bed-hangings, stockings, dresses and arsenical paints.

The symptoms produced necessarily vary in severity and character. In the milder forms, there are catarrhal troubles of the eyes, nose, throat and stomach, with headache and malaise. A condition of nervous prostration may finally result. In severer types, violent pains in the bowels, diarrhœa, vomiting, chills, and great general weakness are observed. Deaths from poisoning by arsenic wall-papers are reported.

Despite the attention which has been called to the subject, there exist as yet no regulating laws in this country as to the employment of arsenic. Such laws have been enacted, however, in most of the countries of Europe, and our State Legislatures would do well to imitate them. Meanwhile, physicians should bear in mind that almost any colored wall-paper may contain a dangerous amount of arsenic.

The Home Treatment of Mental Disease.

BY EDWARD C. MANN, M.D.

THE following case illustrates a large number of cases that can be treated and cured promptly in their own homes, without the necessity of being carried to an insane asylum. A young gentleman, twenty-seven years of age, who had suffered for some months from neurasthenia, or nervous exhaustion, and who for some time had suffered from an overwrought condition of his nervous system, being sleepless and eating poorly, and who had been for a few days melancholy and depressed, was precipitated, by the heat which came on in New York during the first ten days of September of this year, into a condition of subacute mania. He was a broker by profession, and had inherited from his father, who had been an epileptic, a weakened if not actually diseased nervous system, which predisposed him to the acquisition of insanity or some neurosis, on the application of a slight exciting cause. We had treated and cured his sister of a similar attack two years before. In his early years he had been addicted to self-abuse, but not of late years. He was brought to my office, September 14, unequivocally insane. His eyes were suffused, his head hot, his extremities cold; he had no appreciation of his condition and surroundings, and he had rapidly-changing delusions. Up to the 10th of September he had manifested no delirium, but had done everything in a confused, mechanical manner for the preceding week, and had dropped his horse's reins when out driving, while going rapidly. He could give me no account of himself whatever. I ordered him removed from his boarding house to his sister's residence, and there assumed the care of him. I ordered him hot baths, of the temperature of 98°, with cold to the head, daily at 4 P. M. Gave him, to quiet the delirium, sulphuric ether, ʒj and liq. opii. comp., gtt. xx. *pro re nata*, and Valentine's meat juice, with soft boiled eggs, milk and raw oysters, freely and often. One drachm of Warburg's tincture, in capsule, was ordered to be taken before breakfast, daily, and the following reconstructive sedative mixture was ordered to be given by the nurse at ten A. M., four P. M. and ten P. M., in doses of two teaspoonfuls in water:

℞.	Sodii Bromidi.			
	Ammoni Bromidi,	āā	℥ss.	
	Pot. Bromidi,		℥j.	
	Syr. Hypophosphites Com.,		℥iij.	
	Syr. Tolut,		℥j.	
	Aquæ Menth. Pip.,		℥iss.	
	Liq. Pot. Arsenit,		ʒj.	M.

Dose, two teaspoonfuls thrice daily, in water.

Under this treatment, with perfect rest in bed, quiet and a good nurse, I had the satifation of seeing this young man make a recovery to sanity in *ten days*. He is now in the country, where I sent him for rest and a bracing atmosphere, and gaining health and strength daily. I think this case illustrates a very important fact, namely: Persons whose friends become suddenly insane, being much alarmed, send for an asylum physician, who probably orders the patient sent to an asylum at once, and when there he can not get that individual treatment, in most cases, which he needs, and so runs through the natural history of insanity. Prompt home treatment as soon as the *very first symptoms* are noticed by the friends, would do much to prevent hundreds of neurasthenic men and women from being sent to the asylum at all. Of course, if the case can not be promptly treated and controlled at home, and if the delirium does not abate, then it becomes imperative to send the patient either to a private or public hospital, and it is an unkindness to the patient himself not to take this course, as it is depriving him of the means of cure. If the general practitioners of medicine will only pay more attention to nervous and mental diseases, they can often cure their cases at home promptly. Take, for instance, a case of puerperal insanity, where a delicate woman becomes insane after confinement. This form of mental derangement owes its origin, I think, to the poisoning of the system by the absorption of the retained products of conception. If the general practitioner would give his patients a full purgative dose of hyd. chlor. mit., followed by salines, to eliminate this poison, and would then give ether and opium, as I have mentioned, to induce sleep (and rarely more than three doses are required in recent cases), and follow up this treatment with the mixture of the bromides and hypophosphites spoken of above, and at length in the *Philadelphia Medical Bulletin* for October, 1884, he will rarely have to send his patient to an asylum.

In delicate neurasthenic women with uterine complications, of whom I have many annually in my private hospital for nervous diseases, I rarely do more than prescribe a good nurse, perfect rest, a capsule of Warburg's tincture, fasting in the morning, and the reconstructive sedative of the bromides and hypophosphites together, and I see rapid cures by this method of treatment, combined with massage and electricity. I do not treat every case alike, but study the individual therapeutical indications of each, and to that fact owe any success I may have in my treatment of such cases. There are some cases where the mental derangement can be traced directly to uterine irritation. This occurs particularly in young married women. With such cases an application to the os of an unguent of ext. belladonna (Allen's), ℥j and morphia ʒj, and of this a little pill rolled up and introduced every second day, will quiet the most intense mental excitement and hysteria, especially if combined with the following pill:

℞. Zinc valerianat, ... ʒj.
Ext. belladonna, ... gr. iss. M.
Div. in 30 pills, in capsule.
Sig. One capsule every two hours.

This simple treatment will save many a hysterical woman from an insane asylum, if promptly used. There is another form of mental excitement which occurs in women at the climacteric period, and which often runs into insanity, that consigns them to an asylum for years. I have checked this peculiar form of mania, which is characterized by suspicion, sleeplessness and refusal of food, by hot vaginal douches given by a trained nurse daily, and the following pill given every hour, or two hours, as the necessities of the case demand:

℞. Pulv. camph., ... grs. vj.
Ext. hyoscyam, ... grs. xiv.
Puls. digitalis, ... grs. iv.
Mucil. acaciæ, ... q. s. M.
Ft. pill No. 6.

The pill can be followed by the compound bromide mixture until the patient is well, together with that admirable nerve tonic, Warburg's tincture, in one drachm doses, before breakfast. In all these cases, as soon as the patient is quiet, send him or her away from home and business cares, where there will be no mental worry or anxiety, into a clear, bracing atmosphere, for rest. It is a great mistake to think that heredity prevents the cure of a case. It is not so. It is the early care of the case that generally decides its termination, unless it is one which has been coming on for a long time gradually. Such cases as I have mentioned may be cured promptly generally. Of course, there are exceptions to every rule; but care, thought and close attention to such cases, with the necessary knowledge and experience on the part of the professional adviser, ought to markedly diminish the admissions to asylums, particularly in the cases of young men and women who become insane. If it is a first attack in a young person, a prompt recovery ought to be made.

SUNNYSIDE HOME FOR NERVOUS INVALIDS,
204 Leffert's Place,
Brooklyn, N. Y.

Recent Contributions to the Subject of Germicides.

The study of the different characteristics of particular micro-organisms shows that agents which destroy the life of one form may not affect seriously that of another. Consequently the term disinfectant or germicide becomes a very indefinite one. Recent investigation is tending to solve the problem as to what are the best germicides for each pathogenic or putrefactive organism. Those for the ordinary bacteria of putrefaction are quite well known, and we have at different times published results of the investigations into the germicides of the various bacilli. Drs. Schill and Fischer, in a communication to the Imperial Board of Health of Germany, have shown how peculiar is the action of disinfectants upon the phthisical sputa. Carbolic acid, in a five per cent. solution, acts vigorously and destructively upon the bacilli; corrosive sublimate, on the other hand, even in a two per cent. solution, is very untrustworthy. Heat was also found to be sure method of destroying the bacilli and spores.

Dr. Miquel has published in *l' Annuaire Météorologique de Montsouris* the results of some experiments made to determine the minimum amount of a disinfectant necessary to prevent fermentation in a litre of sterilized beef-broth. His experiments show that the mercurials are the best antiseptics, and that the biniodide is nearly three times as strong as the bichloride. This will be seen by the following table:

	Grammes.
Biiodure de mercure	0.025
Iodure d'argent	0.030
Eau oxygenee	0.050
Bichlorure de mercure	0.070
Acide chromique	0.20
Chlore	0.25
Iode	0.25
Brome	0.60
Iodoforme	0.60
Chloroforme	0.80
Sulfate de cuivre	0.90
Acide salicylique	1.00
Cyanure de potassium	1.20
Chlorure de zinc	1.90
Acides azotique, chlorhydrique, phosphorique et sulfurique	2 a 3.00
Acide phenique	3.00
Permanganate de potasse	3.50
Acide borique	7.50
Sulfate de fer	11.00
Borate de soude	70.00
Sel marin	165.00
Glycerine	225.00

The important fact is thus apparently shown that bacterial life is impossible in a solution containing one forty-thousandth part of biniodide of mercury, or one fourteen-thousandth part of the bichloride.

Mr. Wynter Blyth has just published in the "Proceedings of the Royal Society of Edinburgh," the results of an important research in this same direction. He endeavored to determine the relative power of different disinfectants in arresting the growth and destroying the spores of anthrax bacilli. His conclusions, as given in the *Lancet*, are mainly as follows: A one per cent. solution of pure carbolic acid in water, seemed to have no influence on anthrax spores, not even delaying their growth. Even after soaking for twenty-four hours in a ten per cent. solution of carbolic acid, the anthrax spores inoculated into a guinea-pig killed it in two days, with typical anthrax poisoning. Spores soaked for twenty-four hours in undiluted carbolic acid did not afterward develop, but they did so after six hours' soaking in a twenty-five per cent. solution in alcohol. The sulphates of iron, copper, and zinc, which are reputed disinfectants, in no case exercised any destructive influence on the life of anthrax spores. Of chloride of zinc, Dr. Koch has given a very unfavorable verdict as a disinfectant; and, as a germicide, Dr. Blyth testifies no more favorably of it. He found that anthrax spores grew well, after a month's sojourn in a five per cent. solution of chloride of zinc; and the addition of thymol in no way altered the result. Perchloride of iron was experimented with in watery solutions of various strengths, from one to twenty-five per cent.; but in no single case did a twenty-four hours' steeping of the spores destroy their vitality. Mr. Wynter Blyth's research suggests doubts as to the germicidal power of the antiseptics and disinfectants in ordinary use.

Dr. Sternberg has diligently collected nearly all that has so far been learned regarding germicides, and has added much by his own special investigations. A perusal of his work will show that there prevail a good many delusions regarding antiseptics. Attention has been called to some of these by "Medicus," who says:

Carbolic acid (1 to 200) kills bacteria in pure fluids, and septic germs in active growth, but a ten per cent. solution will not kill them in putrid fluids. Dissolved in alcohol or oil it is useless, and will not kill germs in a hundred and ten days. It is far less useful than is usually supposed, and is fast losing its once great reputation.

"Ammonia does not destroy virus or germs or spores, and all its salts are useless as germicides; especially is the very impure ammonia of manure heaps, stables, stable and privy pits harmful. Sulphate of copper destroys the virulence of septicæmic blood, 1 to 400; it has the highest average of all the common metallic salts, except mercury, and is vastly more useful than sulphate of iron or so-called copperas, which is so largely depended upon by health officers.

"Sulphate of iron, even in saturated solution, does not kill any germs or spores, and Dr. Sternberg says, 'to use this agent as a disinfectant, would evidently be a serious error.' It was first used in 1854, on account of the small portion of sulphuric acid in it. It and carbolic acid have failed again and again, and yet again, to prevent the spread of yellow and typhoid fevers, cholera, filth, dysentery, etc., and at one time came near throwing discredit on all disinfectants. They are still largely used for privy vault disinfection, the smells of which they only cover up for a few days, but the germs in which they do not destroy. Muriated tincture of iron in four per cent. solution failed to kill bacteria, yet it is largely depended upon in the treatment of diphtheria.--*Medical Record*.

Psychical Troubles Among Children.

In the *Semaine Med.*, July, 1884, Dr. Leidisdorf says: "Fifty years ago it was absolutely denied that psychical troubles existed among children. It is only within the past ten years that the subject has been discussed by alienists to any extent. During a given three years, 1,714 insane patients were received at the hospital at Döbling (Vienna), who were over eighteen years of age, while only seventeen under the age of eighteen were received. By the last census of Berlin, it appears that there is in that city one insane adult to 400 sane ones, while of the children the proportion is one to 1,400; but the author thinks that no conclusion can be drawn from these statistics. As the result of the author's minute observation, the opinion is advanced that there are few permanent psychical troubles among children, though transitory ones are abundant. Of the latter, the author has observed among children four or five years of age sudden attacks of depression, melancholy, or bad humor. He mentions the case of an intelligent little girl who was suddenly seized with fear that she would lose her parents and be abandoned by everybody, and who became profoundly depressd as a consequence. The same condition is sometimes produced by exaggerated concern on the part of friends for the health of the child, and again by the sight of dead or sick people. Hallucinations are common enough in the psychical life of children, a familiar example being the *night terrors* to which many children are subject. Somnambulism is also of not infrequent occurrence, a condition resembling this sometimes occurring also by day and while the child is awake. An interesting case of the latter variety occurred in the author's experience. Another class of psychical troubles may be permanent. [These are called by the author *zwangsvorstellungen*, a word which has no exact English equivalent; the corresponding French term is *imaginations forcées.*] Such a condition occurs when, for example, a child is filled with fear at the sight of a needle; or, when such a question is asked as, What is the world? and this tendency to mental pertubation may last during life. Permanent psychical troubles are rarely seen in children who are under fourteen years of age. Among the neuroses which are most likely to lead to permanent psychical troubles, are mentioned chorea, epilepsy, and hysteria; and meningitis is less frequently a predisposing cause. One case is reported by the author, of progressive paralysis of the insane in a girl fifteen years of age. This is a most unusual condition, only one other case being recorded in medical literature."

Pilocarpine in Acute Erysipelas.

Professor Da Costa presented the following case at a recent clinic at the Pennsylvania Hospital (*College and Clinical Record*, January 1, 1885), and made the following remarks:

"I have here a case to show you which I think will interest you, as it brings out rather a novel treatment of erysipelas. I intended to exhibit this to you this morning as a case of erysipelas, but I find that the erysipelas is gone. I, therefore, can speak only of the treatment, which has proved more quickly efficacious than I supposed it would.

"This man, B. C., 32 years of age, a fireman, was admitted only day before yesterday. This is the record upon admission: 'He says that he was quite well yesterday (November 12), but did not go to work, as he was celebrating the election. In the evening, according to his statement, he was not drunk, though he had been drinking a little, and became engaged in a very earnest political discussion, when some one equally in earnest struck him in the right eye, making a bruise on the cheek and a small lacerated wound of the eyebrow,' the evidence of which you see for yourselves. The man at that time was quite well, although under the influence of liquor. 'During the night he had much pain in his eye, and in the morning the eyelids were œdematous, and the cheek likewise swollen red and burning.' When he applied for admission the inflammation was confined to the right side of the face, but it spread rapidly, and the same afternoon both eyes were closed. It is worth adding to this history, that he had slept out all Wednesday night after receiving the injury. He was admitted on Thursday morning, with erysipelas of the upper part of the face, which was rapidly spreading over the brow. His pulse was 80; temperature, 102.8°, respiration, 22. The urine was examined, with a negative result. He was ordered tincture of the chloride of iron, twenty drops every three hours, but only received one dose; as the disease was rapidly spreading, and something was needed to make a prompt impression, I used another and more active agent. This was not the first case in which I had used this remedy, but it was the first in which I obtained such relief. He received, hypodermically, one sixth of a grain of muriate of pilocarpine. The result was remarkable. Here is the temperature record: the temperature fell from 102° to 99½°. He sweat profusely for an hour and a half, and there was no further development of the erysipelas; not only did it not spread any further, but what did exist quickly subsided. No local treatment was employed, not even cold applications; therefore, whatever success was obtained was from the pilocarpine.

"I call your attention to this treatment of erysipelas. I said that it had not been my first case, although it was the most striking case I have seen. As long as five years ago I used jaborandi in the treatment of erysipelas until sweating was produced, and, I thought, with the result of checking further development. In one case with high temperature the disease had already made some headway, and did not subside so quickly. Under the use of iron the disease had not been controlled, but the fluid extract of jaborandi, given every two hours, checked it. I have since used the jaborandi in connection with the iron at times, with good results. This is, therefore, not a new treatment with me, as I have used it for some time. Jaborandi and pilocarpine, its active principle, are, of course, similar in their effects.

"I have called your attention to this treatment, not because I believe it will be followed by the same result in every case, but because it is worthy of a trial. If you get a case of erysipelas in its beginning, use pilocarpine. It has saved this man a long and dangerous illness; and, as he had been drinking, as he said he had, the results might have been serious. In the use of this treatment it should be borne in mind that, in order to be fully effective, profuse sweating must be produced."

Microscopy.

An Insectivorous Plant.

KITTIE H. REYNOLDS.

In the *Popular Science Monthly* for July, 1883, our common garden petunia was spoken of quite positively as an insectivorous plant, and I appointed myself detective to ascertain whether or not we were harboring in our garden a plant with this murderous propensity.

I observed with the naked eye that most of the stalks of the petunia seemed to be covered with minute bits of dirt. I selected one of the dirtiest looking stems, and, placing it under the microscope, found that, while there were some particles of inorganic matter caught in its sticky hairs, the majority of the dark specks were, in reality, diminutive insects in all stages of intoxication, death and decay. There were flies, spiders, and various plant pests, some struggling, some dead, and numbers reduced to dry skeletons. Those which were still living really seemed to be prevented from stepping about very lively by something sticky on their feet.

The hairs of the petunia are naturally erect, slender, and tapering, and each bears at the top an egg-shaped gland. Where the insects had stepped the glands were flattened, or sometimes drawn out into sticky threads, and the hairs were broken or bent.

A little fly walked across the table, and I escorted him to the stem under the microscope. Before many seconds he began to lift his feet like a boy on stilts. Though I watched closely, I couldn't see that the hairs became excited and moved spontaneously, as was stated in the article which incited my inquiries. The fly raised his feet and burst the glands, setting free their viscid secretion. He fluttered his wings, with the same result. Then he put down his feet and folded his wings, and then they stuck fast. Often in his struggles different parts of his body became glued to the hairs themselves, and he dragged them after him. This gives to some of the dead insects the appearance of having been forced down and held by the hairs; but their imprisonment seems to be the result of their own movements. The more they struggle, the greater the number of glands which they burst and the more firmly they are pinioned.

After a few hours my fly began to get stupid; whether this was the result of some influence exerted by the secretion, or of his violent and continued struggle, it was impossible to tell. It was probably, however, the former, as four or five more hours of intermittent, spiteful pushing and jerking ended in his death, and this could scarcely have resulted from his being worn out with his efforts to free himself.

Since that day dozens of bugs have followed in his footsteps, and the result has always been substantially the same. They all die; some in few hours, while some live days.

Of course, we can not positively conclude that the plant has need of the insects and absorbs nourishment from their bodies, but it *does* detain and kill them; and from the presence of so many dry skeletons, it is easy to infer that the nitrogenous matter contained in their bodies is sucked in for the use of the plant. Also, from the number of insects found on all the stems and leaves, it is inferable that some attraction is exerted by the peculiar perfume of the secretion.—*Microscope.*

The Cholera Bacillus.

BY J. M. ADAMS.

I HAVE lately received a remarkably good slide of this interesting object from our microscopical friend, W. J. Simmons, of Calcutta, which he obtained with great difficulty from an assistant of Dr. Koch, who, in order to get a genuine specimen, applied the cover glass to the mucous lining of the intestine of a cadaver.

Upon examining this specimen, it is observed that the mucous corpuscles are very numerous and irregular in form; nearly all appear to be ovoid, distended, and finally broken to pieces. The fresher corpuscles are more or less filled with long oval or oblong cells, with ends lightly attached, regular in form and size, and arranged in lines or rows about the outer edge, but interior sometimes in semi-curved chains, and more frequently crowded together heterogeneously, completely filling the corpuscle. These peculiar, prolific cells, or bacilli, finally burst and destroy the corpuscles, leaving now and then shreds with bacilli attached, still arranged in rows not having been separated. Most of the bacilli, when freed from the corpuscle, become separated singly, and float about in the fluid in a somewhat changed and more matured existence. Shreds of the mucous lining membrane also appear, having these same bacilli attached or within it, but not as extensively as in the corpuscles.

Occasional patches of minute micrococci appear, or perhaps the spores of bacilli, yet such spores are not apt to leave the old cell.

The bacilli, at first, in the corpuscle, appear more regular in form and size, being long oval or oblong, and the transverse line of division is hardly distinguishable, being so very small, yet if bacilli, this must exist. The minuteness of the cell may be compared with *B. termo* or *M. ureæ*, although smaller than either, being about 1 *m* in length or a little short of it, and about two-thirds as thick. It is the shortest of any of the bacilli, and thicker than any of the smaller kinds, though not as thick through as the largest. The extreme minuteness makes it a difficult object to examine, to say the least; yet after all quite plain. When the bacilli are set free from the corpuscle being bursted and destroyed, they change their shape considerably, becoming more obtusely oval and enlarged at one end, and comma pointed at the other. The comma point is very short and not always curved with the same angle; the enlarged end probably has its spore at this stage. It is presumable that the bacilli in this condition have some peculiar wriggling or whirling motion.

The cell covering of the bacilli appears to be quite firm and tough, and may not so easily be destroyed unless more absorbent than most of the bacilli. It ought to reflect light as well as the *B. termo*, and might be seen without staining, although it takes the analine colors readily and staining is essential. It is unlike any of the micrococci, resembling in part in its early period the *M. bombyces*, or an oblong *M. septicus*, yet even then much more elongated, and finally becoming dissimilar in every respect to any of the micrococci. It can not be classed as as pirillum, as it never has a complete spiral and is much shorter and altogether different from any known form. It does not in any way resemble any sporular growth of fungi known as such, judging from the specimen at hand. It seems to be identical in itself as to its form and habits, and is easily recognizable from all other forms. It is intensely parastic and wonderfully prolific among the mucous corpuscles.—*Microscope.*

Book Notices.

A THEORETICAL AND PRACTICAL TREATISE ON THE HEMORRHOIDAL DISEASE: Giving the History, Nature, Causes, Pathology, Diagnosis, and Treatment. By William Bodenhamer, A.M., M.D. Illustrated by two Chromo-Lithographic Plates and Twenty-one Wood-cuts. 8vo. Pp. 297. New York: William Wood & Co.; Cincinnati: R. Clarke & Co.

The author states that he has been induced to prepare the present work, for the reason that, in this country, in which monographs abound upon almost every affection, there is no complete classical or systematic treatise upon the subject of the disease denominated *Hemorrhoids*. This is indeed remarkable, for there is scarcely any complaint more common than they are, and there is scarcely any that is more troublesome and painful, even though they may not be attended with danger. We have known many persons who have been sufferers from piles for years, broken down in health and strength, and life made miserable much of the time. To such some successful mode of treatment would be a great boon, and it is surprising, therefore, that some enterprising surgeon has not long ago collected together from the scattered literature, all the experience obtainable and put it in book form. We are glad that Dr. Bodenhamer has finally done this.

Every physician should have a copy of this work. There is not a practitioner who is not frequently called upon to treat piles, and yet how very few medical men are competent to do so in an intelligent, scientific manner, so as to render the relief the patient requires! Bathing the parts in cold water and an astringent anodyne salve prescribed, and the doctor's knowledge of remedies is exhausted. If the patient is not relieved by these prescriptions, he seeks a quack, who sometimes cures him, having given these maladies more attention.

The subject of hemorrhoids is quite exhaustively treated in this work. The various methods of treatment by medicine and surgical operations in the forms of the disease are set forth in a very plain and comprehensive manner. Physicians, by properly studying the work, will be enabled to make themselves much more useful to their patients, will add laurels to their reputation, and lastly, but not of the least consideration by any means, will put money into their pockets.

A Practical Treatise on Massage. Its History, Mode of Application, and Effects; Indications and Contra-Indications, with Results in over Fourteen Hundred Cases. By Douglas Graham, M. D., Fellow of the Massachusetts Medical Society. 8vo. Pp. 286. New York: Wm. Wood & Co. Cincinnati: R. Clarke & Co.

The author defines massage to signify "a group of procedures which are usually done with the hands, such as friction, kneading, manipulating, rolling, and percussion of the external tissues of the body in a variety of ways, either with a curative, palliative, or hygienic object in view. Its application should in many instances be combined with passive, resistive, or assistive movements, and these are often spoken of as the Swedish movement cure." Dr. Graham dates the origin of massage back to the times of the old Greeks and Romans, although, no doubt, most persons consider it an invention of the last few years.

From our own experience we know nothing about the treatment of diseases by massage, but we have heard some speak of the results in very high terms. Our author states that *as an auxiliary* in the treatment of neurasthenia and impoverishment of the tissues in females, massage has won its greatest merit. There are patients, he says, who have gotten into a state of *hibernation* from some physical or mental strain—have become weak, wakeful, full of pains and aches, and are unable to get up until their blood has been replenished, and their tissues reformed, until they have been soothed and comforted to sleep by the warm hands of the manipulator, and their muscles aroused to action by lightning strokes skillfully let loose upon them. He states that Playfair has mentioned cases that were cured by massage, combined with other remedies, who had been bedridden invalids for six, nine, sixteen, twenty and twenty-three years, and some of these were such sufferers that they had to be transported from their homes to London, for treatment under an anesthetic.

This work gives a full account of the physiological effects of massage, of the mode of applying it, and of the diseases in the treatment of which it is the most beneficial. Some of the physiological effects spoken of are singular, as a disagreeable sensation of tingling or crawling in some other part; an agreeable thrill, "such as one is apt to experience on the receipt of joyful news, or on learning of heroic actions."

The following are some of the diseases discussed, in which either massage alone, or combined with other remedies, is known to be efficient: Several of the diseases of the uterus and its surroundings, chronic hyperemia of the liver, atony of the stomach and intestines, intestinal obstruction, periphritic induration, neurasthenia in either sex, hemiplegia, paralysis, locomotor ataxia, writer's cramp and allied affections, neuralgia, muscular rheumatism, sprains and joint affections, etc.

HUMAN OSTEOLOGY: Comprising a Description of the Bones, with Delineations of the Attachments of the Muscles, the General and Microscopic Structure of Bone and Its Development. By Luther Holden, Ex-President and Member of the Court of Examiners of the Royal College of Surgeons of England; Consulting Surgeon to St. Bartholomew's and the Foundling Hospital. Assisted by James Shuter, F. R. C. S., M. A., M. B. CANTAB; Assistant-Surgeon to the Royal Free Hospital; Late Demonstrator of Pathology at St. Bartholomew's Hospital, etc. With Numerous Illustrations. Sixth Edition. 8vo. Pp. 276. New York: Wm. Wood & Co.; Cincinnati: R. Clarke & Co.

This work constitutes the January number, 1885, of *Wood's Library of Standard Medical Authors*. As a work upon human osteology, it is superior to any that has ever been published. The first forty pages are devoted to the consideration of osteology—the structure, formation, growth and development of bone. Of course, in this part, we have explained the terms, with which students of anatomy so frequently meet in their studies, *viz.*, "eminencies," "depressions," "processes," "tuberosities," "spines," "foramina," "notches," "canals,' "sinus," "fossæ," "trochanters," "condyles," etc. It is by no means the least interesting portion, especially the microscopic descriptions, which are explained in very clear, lucid language, and illustrated by excellent cuts. It is stated of the Haversian canals that they are from $\frac{1}{1000}$ to $\frac{1}{200}$ of an inch in diameter, averaging about $\frac{1}{500}$. "They are tunnels in the compact substance of the bone, which contain the blood-vessels. They form no part of the *essential* structure of bone. Wherever bone is so thin as to be able to derive its nutrition from the vascular membrane covering its surface, we do not find Haversian canals in it, nor does it require any. For instance, the delicate plates of bone composing cancellous tissue, the paper-like bones in the interior of the nose, have no Haversian canals in them; but they have plenty of lacunæ, which send out their canaliculi to open on the surface and imbibe the requisite nutrition. Bone so thin as to need no Haversian canals, is called 'non-vascular' bone. Such bone lives upon the blood which flows through the minute vessels of its periosteum. Bone has, therefore, like all other living structures, a *self-formative* power, and draws from the blood the materials for its own nutrition."

The plates, which have been artistically drawn, are printed upon especially thick, compact, smooth paper. The various figures show plainly the characteristic features, with the names of such printed at one side, and dotted lines proceeding to the part. This method is far more satisfactory than having the names printed at the bottom of the page, and reference made to them by numerals. When it can be conveniently done, the designation of some portions of an osseous structure is printed upon the part itself.

After general osteology has been considered, a description of the human skeleton is entered upon, beginning with the skull, consisting of the eight bones of the cranium and fourteen of the face—the first separate bone taken up being the occiput. But we can not, of course, follow the author along, in his descriptions, from bone to bone. Suffice to say, that every bone of the human skeleton is accurately described, and described, too, in an interesting manner. The description of the bones has always been considered the most uninteresting part of anatomy—uninteresting *per se;* but really in this work it is made quite interesting. We advise students and physicians, who desire to obtain a thorough knowledge of anatomy, not to limit themselves to the ordinary works upon anatomy, while studying osteology, but to procure this work. With the thorough acquaintance of the skeleton, which they will obtain through it, they will be greatly aided in familiarizing themselves with the soft parts—the location of muscles, the course of arteries, veins and nerves, a complete knowledge of the anatomy of the brain, and other organs.

A MANUAL OF ORGANIC MATERIA MEDICA: BEING A GUIDE TO MATERIA MEDICA OF THE VEGETABLE AND ANIMAL KINGDOMS, FOR THE USE OF STUDENTS, DRUGGISTS, PHARMACISTS AND PHYSICIANS. By John Maisch, PHAR. D., Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. Second Edition. With 242 illustrations. 8vo. Pp. 511. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price $3.00.

Not only students and druggists, but physicians, will esteem this as a valuable book, suited to their wants. It forms a treatise upon the vegetable materia medica, in which is considered the *essential* physical, histological and chemical characters of organic drugs. It is often desirable to study these properties apart from the therapeutic effects, and the work before us permits it. Prof. Maisch, who lectures upon materia medica in the Philadelphia College of Pharmacy, prepared it to be used in connection with his lectures, as he states in the preface.

The work has been received with marked favor, for having been first published only about three years ago, it has been out of print for about fifteen months, owing to the author's time being so occupied that he could not find it convenient to revise it. While the general arrangement remains the same, the work has been enlarged in size by the descriptions of new remedies.

We have no doubt the second edition will meet with even more favor than the first. It is printed upon very handsome paper, and the cuts are beautifully executed.

THE YEAR-BOOK OF TREATMENT FOR 1884. A Critical Review for Practitioners of Medicine and Surgery. Contributors: J. Mitchell Bruce, M.D.; T. Lander Brunton, M.D., F. R. S.; Thomas Bryant, F. R. C. S.; F. H. Champney, M. B.; Malcolm Morris, F. R. C. S., ED.; Edmund Owen, F. R. C. S.; R. Douglas Powell, M.D.; Henry Power, M. B., F. R. C. S., etc. 8vo. Pp. 316.

Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price $1.25.

The object of this book is to present to the practitioner not only a complete account of all the more important advances made in the treatment of disease, but to furnish also a review of the same by competent authorities. The medical literature of all countries has been placed under contribution, and the work deals with all the more important matters relating to treatment, that have been published during the year ending September 30, 1884.

The plan of this Year-Book is as follows: Under the head of the various diseases, commencing with *Diseases of the Heart and Circulation*, selections are made from the different medical journals of the world, from papers and monographs, from proceedings of societies, etc., embodying important facts in regard to the pathology, etiology, treatment, etc., of those affections. While resembling in its plan *Braithwaite's Retrospect*, but being a yearly book instead of half-yearly one, it differs in that the selected material is more choice, and the pith of articles are generally given in the condensed language of the editors, instead of the verbose sentences of the authors themselves.

The work can not but be held in high esteem, as it affords complete information, by a few moments expended in turning over its leaves, of whatever progress has been made in the knowledge of any of the various diseases during the year 1884. To fully understand the really vast amount of practical information contained in so small a compass as there is in this little work, the book must be examined.

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KOCH'S LABORATORY.—Under the terms of the liberal grant of money made by the German Government for the prosecution of his investigations of the cholera germ and related subjects, Dr. Koch is to admit thereto small classes of medical men of Germany, for the purpose of studying the comma-bacillus and its method of cultivation. Through the efforts of Minister Kasson and the courtesy of Prince Bismarck, Dr. George W. Lewis, of Buffalo, N. Y., has also been admitted to these classes, and in the current number of the *Buffalo Medical and Surgical Journal* he publishes an account of Dr. Koch's cultivation experiments.—*Phil. Medical News.*

Editorial.

COMMENCEMENT EXERCISES OF THE CINCINNATI MEDICAL COLLEGES.—The three medical colleges of this city have held their annual Commencement Exercises, closing their sessions of the last winter. The last issue of the *Lancet and Clinic* devotes nearly all of its pages with accounts of the Commencements of the Miami Medical College and Ohio Medical College, but does not even allude to that of the Cincinnati College of Medicine and Surgery. May be the editor is not aware that there is such an institution, or may be he thought, that, with the proceedings of its Commencement published in that paper which one of the newspapers announced that Dr. R. C. S. Reed, the Dean, and several others, were about to publish, and which, it was said, would contain the essays of Dr. P. F. Maley and others, read before the Alumnal Association, all the publicity necessary would be given. But we have not been honored with a copy of the aforesaid paper, and can not say whether it ever made an appearance or not. If it did, its circulation must have been very private.

We have not space to spare to give a detailed account of the Commencements of the Cincinnati colleges. To describe the three would take twelve or fifteen pages; and it would exhibit partiality to print a full report of one and not of the others.

The Cincinnati Medical College held its Commencement the latter part of February, in the Odeon, a new, elegant, large hall, forming an annex to Music Hall. Twenty-five young gentlemen received diplomas from the hands of the President of the Board of Trustees. Music was afforded by the organ, and several solos were sang by a lady, as the papers report. Prizes also were awarded, and flowers distributed.

The Miami Medical College also held its Commencement in the Odeon. The number of graduates was twenty-seven. Prof. Wm. Clendenin, being prostrated on a bed of sickness, was unable to be present, but Prof. E. Williams read his report in regard to the condition of the college. Henry W. Rover, of Ohio, of the graduating class, received the prize of $100 in gold for sustaining the best examination. Some two or three others received honorable mention. The Valedictory Address was delivered by Dr. T. W. Langdon, of the Faculty. The Cincinnati Orchestra, led by Michael Brand, discoursed very fine music. The attendance of friends of the college and students was very large. After the graduating exersises, the Faculty entertained the Alumni and a host of invited friends by a very fine banquet given at the Burnet House, the occasion being fully up to the reputation of the house and the expectations of the Committee of Arrangements.

The Commencement of the Medical College of Ohio was held in the Odeon, on the evening of March 5th, closing the sixty-sixth annual session. The graduates numbered 66. Prof. J. T. Whittaker delivered the Valedictory. The Dean, Dr. Seeley, in his address to the audience, made some statements that are remarkable, when the facts are considered. We quote: "While the college in times past has sent, and is still sending out men who fill chairs in other schools, she has constantly filled her own from the ranks of her graduates." Now, the truth is that, until late years, whenever a vacancy occurred in the Faculty of the Ohio Medical College, the rule always was to appoint a medical gentleman of some Eastern city, not a graduate of the school, to fill it. This custom was so invariable that the physicians of the city, who were graduates of the college, and who felt themselves competent to teach, became loud in their complaints, and used their influence against it. Other physicians, too, who were not graduates of the college, became embittered in consequence of the discrimination against Western educated men. The consequence was, the institution became almost extinct for want of patronage. Those who are acquainted with the history of the college from, say, about 1845 to 1850, are familiar with the fact that the Miami Medical College was organized for the reason that no physician, educated in the West, though a graduate of the college itself, could obtain a chair in the Medical College of Ohio. For a long time it was largely the capital of the Miami College that it was a school in which home talent was used. Of those who founded it, the following were graduates of the Ohio College: J. A. Murphy, Jesse P. Judkins, John Davis, Henry E. Foote, Wm. Clendenin, Wm. H. Mussey, Jos. Webb, (the three latter gentlemen did not hold chairs—Drs. Clendenin and Webb being Demonstrators, and Dr. Mussey assisting his father in surgery). The other members of the Miami Faculty were persons identified with the West. Thus it will be seen that Dr. Seeley spoke very much at random when he said that his school had constantly filled its chairs from the ranks of its graduates. It never did it until it was forced to do so, in order to preserve its existence. Some others of his statements are as incorrect.

Prof. Jas. T. Whittaker, in his Valedictory Address, exhibited great knowledge of antiquity. He proved that learning did not begin in ancient Egypt, as many thought, but that the Egyptians were borrowers from the Phenicians.

EXPERT TESTIMONY AND MEDICAL COLLEGES.—In an article upon "The Law of Insanity," which we copy in this number of the MEDICAL NEWS, Dr. H. C. Wood, the writer, makes some remarks which are worthy of attention. Speaking of the present low condition of medical expert testimony in this country, he says: "The fault and the consequent disgrace lie not with the properly qualified experts, but with the practice adopted by judges of admitting any one to the stand who will put himself forward, however ignorant he may be. The law has taken away from the medical professon all control over its own membership and its own government. It has handed it, helplessly bound, over to the medical colleges, institutions without responsibility, from whose secret examinations all light of publicity is shut out; institutions which directly derive large revenues by letting loose upon the profession uneducated men. In the eyes of the court these men are all experts, to the play of whose ignorant fancy human property, liberty and life, are left almost unprotected."

We have frequently called attention in the MEDICAL NEWS to the wrong done to the profession in surrendering to the medical colleges the privilege of granting admission to its ranks. In this country, at least, these institutions are irresponsible bodies, answerable to no one for their proceedings. With large numbers of them, the diploma fees are essential to their existence; and with all of them their amount affect largely the amount of the compensation received by each professor for his services in lecturing. To refuse graduation, therefore, to a student is, in some cases, to risk the life of the college; in very many other instances it results in lessening income for teaching, which, by taking advantage of every resource, is felt to be too small in proportion to the amount of labor expended. Every one knows how elastic the conscience is, with the most of men, under selfish appeals. How frequently have we heard members of faculties insist upon graduating an incompetent candidate for the honors of the profession, for the reason that they believed he would improve himself after he had begun practice, or for other reasons that had no better basis. Improbable as it may seem to be to many, we feel sure that the influence of the diploma fee has oftentimes led to the admission of undeserving men into the profession. If, by legislative enactment, medical colleges were not permitted to charge for graduation, a step, at least, would be taken toward keeping out of the ranks unqualified individuals. By the abolishment of the fee, not only the welfare of the profession would be advanced, but an act of injustice to students would be removed; for we hold, that if a medical student has fulfilled all the requirements for graduation, as regards length of time of study, attendance upon lectures and paying for the same, passing a successful examination, a diploma is due him without cost; and to withhold it from him, because he did not have the money demanded for it, would be a wrong. To require payment of money, therefore, for what should be given without it, is, in our opinion, to enforce a bribe. But it may be said that the income of the schools would not be sufficient without fees for graduation. But to allege this, is to admit that such fees serve as a strong inducement to graduate improper persons; and that with the majority of the colleges care must be taken that rejections must not be in excess of a certain per cent. of the whole number of candidates, to be determined by the amount received for tuition. Though twenty-five per cent., judged by examinations, should be refused diplomas, yet if it has been determined that it could not be afforded not to pass more than ten per cent., the whole number, forsooth, must be let loose upon the profession, so as not to endanger the existence of the college. If medical institutions can not get along without diploma fees, with their present prices for tuition, the latter should be increased.

Dr. Wood very correctly says that admission to the medical profession has been handed over to irresponsible bodies of men, from whose secret examinations all light of publicity has been shut out. These organizations—medical colleges—every year, as a result of their secret examinations, admit persons to the honors of the profession whom they would not dare to graduate, if these examinations were witnessed by the public, and the gross ignorance disclosed by them was seen. When the light of day does not shine upon the acts of men, it is then they do wrong, especially if there are selfish motives impelling them to it; and, as we have shown, there are strong motives to graduate unfit persons.

In this country, in which educational matters are left to the legislation of the various States, and the diplomas received in one State are recognized in all the others, it would be attended with very considerable difficulty to bring about reform in medical education. But if it could be accomplished, great benefit would result to the profession if the privilege of conferring the degree of M.D. was taken away from the colleges and given to some board or boards, composed of physicians of acknowledged eminence and integrity. The colleges would continue to impart instruction, and the same requirements demanded of students, as regards length of time of study and attendance upon a definite number of courses of lectures, as have been enforced heretofore. Such a board should meet one or more times a year in the Capital of its State, if there should be but one of them to a State, for the examination of candidates for admission to the profession, who should exhibit certificates from the medical colleges which they had attended, showing that they had fulfilled all the requirements demanded, and each one should pay a fee for his examination, for defraying the expenses of the board, and for the remuneration of the members.

So numerous are incompetent physicians—so great is the number of those bearing the title of M.D., that that degree has ceased to be a guaranty of qualifications to practice medicine. Of late years there has been organized a society called the *American Academy of Medicine*, that physicians, by becoming members of it, may have some means of affording evidence that they possess some claim to learning. Fellowship in it, therefore, requires that the individual should have been the recipient of academical honors, should have had the degree of A.M. conferred upon him. While such an organization affords an opportunity, in part, of discriminating between those who are ignorant and those who are not, yet it is far from fully answering the purpose; for some of the most eminent medical men of the country are not men of collegiate education, and, consequently, are not eligible for membership to such a society. What is needed is, that such qualifications should be required, in order to have the degree of M.D. conferred, that its possession should be a guaranty of high qualifications of the one having it—that the possessor of it is, in fact, an expert upon all subjects pertaining to medicine.

BI-CHLORIDE OF MERCURY IN PHTHISIS.—Dr. P. C. Kalloch, in the *Phil. Med. News*, states that he has employed corrosive sublimate with great advantage in phthisis pulmonalis. As we feel sure our readers will be greatly interested in his report, we have taken the liberty to copy a portion of it. Dr. K. is Assistant Surgeon U. S. Marine Hospital Service. He writes as follows of the remedy.

"The bichloride of mercury is not, I believe, in general use as a remedy in phthisis pulmonalis, but is, I think, of sufficient value to merit further investigation.

"The only article written upon the subject that has come to my notice was that of Andrew H. Smith, M.D., of New York, in the *Medical Record* of September 20, 1884, in which he spoke of some experiments with the drug for the purpose of ascertaining the maximum dose that could be safely given, evidently with the idea of producing a favorable effect by the germicidal action which the medicine is known to possess.

"I have not used it with the same purpose in view, but rather with the expectation of promoting the action of the lymphatic system in removing deleterious matter from the blood and system at large, and of improving the quality of the blood."

He then mentions the fact that authorities have stated that mercury increases the number of red corpuscles of the blood, providing it be given in small quantities, not often repeated; but any considerable quantity administered a sufficient time will affect the quality and composition of the blood. He then proceeds to say:

"I am of the opinion that the lymphatic system is largely at fault in phthisis, and, indeed, the theory, that phthisis and scrofula are identical, is a very prevalent one.

"I have, therefore, not considered the part taken by the bacillus tuberculosis in the use of this remedy, being first induced to use it by noticing its good effect in a case of suspected syphilitic phthisis.

"I have used the following prescription, at times slightly modified, in thirty-three cases of phthisis, twenty of which were treated at the hospital, the remaining number as office cases, most of the latter being in the incipient stages of the disease.

℞—Hydrarg. bichloride,	gr. j.
Ammonium chloride,	ʒiiss.
Alcohol,	f℥ij.
Glycerine and water to make f℥iv.	

"Of this, a teaspoonful was given after each meal, well diluted.

"I addition to this, I have usually prescribed an embrocation of oleum morrhuæ and oleum terebinthinæ, to be used over the chest twice daily.

"The result has been, I believe, in every case (with the exception of one of laryngeal phthisis, well advanced before treatment was begun, which ended fatally) most satisfactory, the symptoms improving with as much regularity as we expect in cases of malaria, under the judicious use of quinine, though of course not so rapidly. I do not remember a single case (except the one noted above) under the treatment for any length of time, without seeing most marked improvement in the symptoms and general condition.

ONTARIO (CAN.) ANATOMY ACT.—In the medical schools of Toronto, Canada, there has been great difficulty, for a number of years, in obtaining sufficient anatomical material for dissecting purposes. While the demand has been yearly increasing, in consequence of an increase in the number of students, subjects for dissecting have decreased. During the last winter, want of material was greater than ever known before. To remedy this state of affairs, a revised Anatomy Act has been prepared, which will soon be introduced into the Provincial Legislature. It provides that the bodies of those dying in public institutions, or found dead and not claimed by relatives or friends who are willing to bear the funeral expenses, shall be handed over to the medical schools for anatomical purposes. As during the past year over one hundred corpses were buried at the expense of the city of Toronto, it is thought that, if this amended act passes, the supply of anatomical material will hereafter be abundant.

The anatomical act of Ohio has its value to the medical colleges destroyed by a provision compelling the authorities of hospitals, poor-houses, etc., to bury the bodies of deceased inmates if it is requested by friends, or if the inmate himself, previous to dying, requests to be buried. There are always parties to prompt a pauper about to die, if he should not have been aware of this legal provision, to ask to be buried on his demise, so that it seldom happens that a corpse can be transferred directly from a public institution to a dissecting-room. It seems to us absurd, that a vicious pauper, who has cost the public probably thousands of dollars during his vicious career, in the way of being tried and sent to the work-house or jail scores of times, fed and clothed at the public expense, whose life has been worse than that of being worthless—for he has not only never added anything to the general welfare, but has detracted from it—should be permitted, at the last, to command the public to tax themselves to put his carcass under the ground, when, if his body, so soon as the breath left it, was carted to a dissecting-room, there would be obtained from its dissection a pittance, in the way of advantage from his existence, in return for the expenditures he had caused the public; and this pitiful contribution to the general welfare, by having their bodies dissected after death for the purposes of anatomical instruction, is the only benefit the world receives from the lives of such creatures. In the Ontario anatomical act, however, a pauper, to obtain burial for his body, must have a friend or relative who will be willing to pay the expenses of the burial.

ACADEMY OF MEDICINE OF CINCINNATI.—At the meeting held March 2, the following gentlemen were elected officers for the ensuing year: President, Dr. Samuel Nickles; First Vice-President, Dr. A. E. Heighway; Second Vice-President, Dr. William Judkins; Recording Secretary, Dr. G. A. Fackler; Corresponding Secretary, Dr. A. G. Drury; Treasurer, Dr. Geo. E. Jones; Librarian, Dr. J. L. Fogel; Trustees, Drs. J. H. Buckner, James M. French, and O. E. Osmond.

At the meeting of February 17, Dr. Herman J. Groesbeck read a paper on the "Recent Progress of Medicine." He speaks of the discovery of the cholera bacillus and the virus of rabies as the two great pathological discoveries of the past year. Yet, in the next paragraph or so, he admits that the pathology of cholera is an open question, seeing that the French physicians deny that the comma-shaped bacillus is the specific organism of Asiatic cholera—Dr. Lewis having discovered similar organisms in the buecal secretion, and Drs. Finkler and Prior, of Bonn, in their researches upon cholera nostras, having detected the same comma-shaped bacillus. In England, Prof. Ray Lankaster, Drs. Klein and Gibbes, who were sent to India to study the disease, as Dr. Koch did, are not in accord with Dr. Koch's theory.

The discovery of cocaine he regards as the greatest advance made in practical therapeutics. He relates a case, that he had seen reported, in which a man complained of rectal and vesical tenesmus. Coca butter suppositories were ordered, each containing half a grain of cocaine. The benefit obtained was very marked, and continued the whole of the following day. From the promptness and efficacy of the cocaine in this case, Dr. Groesbeck confidently anticipates a brilliant future for the alkaloid. We do not care to criticise.

We are surprised that Dr. G. should mention the diagnosis of a fictitious tumor of the brain by Dr. Hughes Bennett, with its removal after trephining the skull, as a great triumph in neurological science. From reports, there was nothing as regards the diagnosis and subsequent operation to take pride in.

THREE ATTEMPTS AT HANGING.—We clip the following from the *Laneet.* Who Mr. John Lee, the murderer, is, we do not know, nor do we know anything in regard to the particulars of his crime; but we do know that the attempt to execute him for his crime, in the way of bungling, eclipses any bungling of the kind we have ever heard of in this country. We had been of the opinion that, in old England, where they have men who do hanging for a living, hanging was an art of precision; but it seems we were laboring under a mistake, unless in the case mentioned, as is intimated, the *supernatural* interfered:

"It was simply just to commute the sentence of death passed on John Lee, the butler, convicted of the murder of Miss Keyse at Babbicombe, in November last. The bitterness of death has been inflicted on that condemned man at least three times, and the law ought to be satisfied. The mismanagement of the execution was complete—indeed, so complete as to be startling; and if it should hereafter be found that the disavowal of guilt, to which Lee still adheres, is truthful, there will not be wanting many to allege that the execution was prevented by some supernatural agency. It is inconceivable that the "drop" could not be made to fall when the bolt was drawn! It was surely tried before the execution, and presumably it was again tried once or twice between the futile attempts to hang the culprit. What are we to understand? The interposition of the Home Secretary was clearly called for, and it would be inhuman to hang the convict now; but there ought certainly to be a searching inquiry into the causes of the failure."

BOWEL EXPLORATION.—Dr. W. W. Dawson, of the Ohio Medical College, publishes a lecture upon this subject in a recent number of the *Lancet and Clinic.* He states that with the hand passed in the rectum the parts above the rim of the pelvis may be readily examined; that the kidneys have beeen felt, and pulsation in the larger branches of the aorta can be traced, and, consequently, controlled. Although he quotes from a letter of Dr. Nathan Bozeman, in which he states he has witnessed Prof. Simon pass the hand and arm per anum to a point in the abdomen that the left kidney and false ribs could be felt, and the abdominal wall of the same side of the median line be lifted at every point upon the ends of the fingers; yet, curiously, he makes no allusion to a publication of his own townsman, Dr. Carson, in which Dr. C. stated that, in the case of a male patient, he had passed the whole hand through the anus, with much of his arm—if we remember rightly, passing the arm into the rectum as high up as the elbow—and was able to feel the kidneys, touch the under surface of the liver, etc. Why cross the Atlantic for accounts of remarkable feats that can be found right at home?

Some physician of the central part of Ohio, taking exceptions to Dr. Carson's method of exploring the abdominal cavity, sent us a paper, severely criticising it, which we refused to publish, much to his indignation.

GULSTONIAN LECTURES DELIVERED BY AN AMERICAN.—This year's lenten lectures at the Royal College of Physicians, London, were opened on Thursday, February 26th, by Dr. Osler, of Philadelphia, who chose for the subject of his Gulstonian Lectures the fascinating disease known as ulcerative endocarditis. His first lecture was devoted to the naked eye and microscopic pathology of the affection, its clinical history and etiology being left for discussion in the lectures to be delivered on Tuesday and Thursday in the following week. The lecture was mainly *extempore,* lasted the ideal forty-five minutes, and was unusually well attended. Dr. Osler, as might have been expected, was most cordially greeted, and there can be no doubt that his lecture was such as was well worth while his coming across the water to deliver.—*London Medical Times,* February 28, 1885.

DEATH OF DR. ELLERSLIE WALLACE.—This gentleman, who was Emeritus Professor of Obstetrics and Diseases of

Women and Children, in the Jefferson Medical College, of Philadelphia, died in Philadelphia, the present month, March 10th. He was born June 10th, 1819. He graduated in medicine at Jefferson College, in 1843. In 1846, he was chosen Demonstrator of Anatomy in the institution, and held the position until 1863, when he was elected to the Chair of Obstetrics, made vacant by the resignation of Dr. Charles D. Meigs, and held the position until June, 1883. He had also been Dean of the college. Dr. Wallace, it is stated, had been in bad health for some months past, but the immediate cause of his death was an erysipelatous affection of the head and face. He was a fluent lecturer, and a popular teacher, and was much beloved by his class.

MEDICAL GRADUATES.—So far as we have been able to learn from our exchanges, the following numbers have been graduated this spring by the medical colleges mentioned: Bellevue Hospital Medical College, 134; University of the City of New York, 175; University of Tennessee, 59; University of Nashville, and Vanderbilt University, 100; Memphis Hospital Medical College, 33; Arkansas Industrial University, Little Rock, Ark., 8; Medical College of Ohio, 66; Cincinnati College of Medicine and Surgery, 25; Miami Medical College, Cincinnati, O., 27.

INTERNATIONAL MEDICAL CONGRESS.—We learn from a late number of the *Lancet*, of London, that the arrangements for the meeting of the International Medical Congress in Washington, in 1887, are in a forward state of preparation, and that the officers of the various sections have been nominated. Dr. Flint, it is said, is to be the president of the Congress; certainly no one could be chosen who would more worthily fill the chair.

THE PHYSICIAN HIMSELF.—The author of the work thus entitled writes us that he will soon have prepared a fourth edition, revised, enlarged and improved. It has met with a large sale, and will, probably, in the new edition, merit more than ever the favor accorded it.

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Original Contributions.

On Washing Out the Stomach in the Treatment of Ileus.

BY JAS. T. WHITTAKER, M. D.

OCCLUSION of the intestine is more frequent than is commonly supposed. Leichtenstern puts down the deaths from this affection, in proportion to other diseases, as one to three hundred. Treves, in his recent essay, observes that two thousand people die in England every year of obstruction of the bowels, independent or exclusive of hernias. Even if the disease were more rare, the intense suffering caused by it, in comparison with the number and nature of the remedies available in its relief, would make welcome every contribution to its therapy.

I had occasion to make use of irrigation of the stomach a few weeks ago in the case of a man, æt. between 35 and 40, who had suffered with dysentery, off and on, for a year, and had had supervene, for the first time, about six months ago, symptoms of incomplete obstruction. The obstruction was of such nature as to become more or less complete with any imprudence in diet, and the attack which I was called to relieve, the patient ascribed to a meal of pork and beans. The patient seemed a man in the full vigor of life, weighing perhaps 160 pounds. He was straining at stool when I saw him, over a large wash-bowl, but was unable to evacuate anything from the bowels, and had not been, he said, for five days. Four or five ounces of black, grumous, watery mucus covered the bottom of the bowl. This matter had been rejected by the stomach. The patient continued to vomit the same matter, in small quantities, repeatedly, and after much retching, though seemingly without nausea, as he proceeded to describe his symptoms. He complained of deep-seated, gnawing pains, not localized, but diffused over the whole lower half of the abdomen, and was profoundly dejected in spirit, insisting upon it that he had a fatal disease. He was in a state of agitation, being in and out of bed every five minutes.

The abdomen appeared perfectly natural. There was no tumor, no gaseous distention, and there was no tenderness to pressure. In fact, the abdomen could be even kneaded without pain. Examination of the rectum by the finger revealed nothing abnormal.

The history and the condition pretty clearly indicated a post-dysenteric stricture of the colon somewhere near the rectum, and this opinion was shared also by the attending physician, Dr. Highlands, who had cured the patient of a local ulcer in the rectum several months before by topical treatment. The physician in attendance had made all proper efforts to relieve the constipation by mild laxatives, and by repeated use of enemata, without avail. As I had been convinced by the symptoms mentioned of the character of the case, I had gone provided with a stomach pump, which was used at once. The tube was introduced with some difficulty on account of the timidity of the patient, but so soon as it reached the stomach there gushed up by the side of it, perhaps, a quart of dark matter like that previously rejected. The stomach was now washed out with warm water, and the patient returned to bed. The vomiting ceased at once, the pain was greatly relieved, and in the course of an hour a natural evacuation of the bowels occurred. The matter discharged was in small black masses, apparently dislodged from above the stricture.

The relief thus afforded was, however, only temporary. The pain recurred during the night, and the vomiting was substituted by an obstinate singultus. The use of the stomach pump on the next morning again gave the patient temporary relief, and was followed by two natural evacuations of the same character as before. But the symptoms continued to recur, the dejection and depression becoming more marked, so that it was thought justifiable to attempt to explore the bowels with a long, flexible tube. At the distance of about twelve inches from the anus an obstruction was encountered, through which the tube slipped, to enter an open space apparently penetrable to any distance in the course of the descending colon. Three pints of water were now easily injected through the tube. On previous occasions not more than a pint or a pint and a half could be entered. But when the tube was withdrawn but a few ounces of water escaped. All that night the patient was kept under the full influence of opium, which had been given in less doses up to that time. I had no opportunity to see the case again, as I had to leave the city in a different direction, and on my return two days later I learned that the patient had died on the day after the last visit. A *post-mortem* had not been allowed.

This case, as reported, is, of course, very incomplete, but it showed conclusively the value of irrigation of the stomach in relief of one of the most distressing symptoms of ileus from whatever cause, and it was on this account that it is related.

By Brinton's statistics it is seen that of all the causes of occlusion, invagination is first in frequency, internal strangulation second and stricture third. And of all the causes of stricture it is recognized that dysentery is the most frequent.

The symptoms of stricture do not differ much from those depending upon obstruction from any cause. Pain, vomiting, distention, a tumor from impacted feces, obstipation, suppression of urine, collapse, unmistakably mark the character of a pronounced case. But these symptoms are by no means always present in this array. In the case reported, the diagnosis rested upon the general nervousness, gradual loss of strength, constipation, inability to fill the bowels by an injection, diminution in the quantity of urine, and above all, the vomiting; symptoms indicating a chronic and incomplete stricture, made complete temporarily, perhaps, by an element of spasmodic constriction supervening upon irritation..

The positive treatment of intestinal occlusion, mild laxatives, injections, subsequently opium, which has been characterized as the "best cathartic" in these cases, having proved ineffective, resort is usually had to extreme measures, namely, to the knife. But the recent statistics of laparotomy do not give the encouragement that the results in other fields of abdominal surgery would lead us to hope. Thus in Treves' collected cases, of 122 laparotomies undertaken for the relief of occlusion, 77 proved fatal, a mortality of 63 per cent. While it is highly probable that earlier operations would furnish better results, it is well recognized that the figures above given do not represent the whole truth, for the reason that a large number of unsuccessful operations are not published at all. The natural repugnance to opening the abdomen, more especially in acute cases, making of it a dernier resort, will, of necessity, postpone the operation in the majority of instances until the case is hopeless under any treatment. Hence, any contribution to internal medicine will be greeted with great pleasure.

Irrigation of the stomach is a contribution in this direction which has proven of singular and signal value, palliative always, and often curative, even under desperate circumstances.

Kussmaul called attention first, in a systematic way, to the value of washing out the stomach, basing his conclusions upon four cases reported in the *Berlin Klin. Wochenschrift*, No. 43, 1884. In one of these cases continuous treatment relieved an obstipation that had lasted twenty-five days. The patient finally died of peritonitis, but the agonizing symptoms of occlusion had entirely disappeared.

Senator next (*Deutsche Med. Zeit.*, January 5, 1885), reported the case of a man, æt. 22, who was brought to the hospital after seven days' acute occlusion, cyanotic and in collapse (*vox cholerica, tympanites*), but in whose case there was no pain and no localization of the difficulty. Everything was rejected by the stomach, and by the end of the third day the ejected matter was stercoraceous. As he had failed with every other method of treatment, he was led to adopt Kussmaul's irrigation treatment, having, he says, just noticed the report of his cases. The operation was attended by immediate relief. Great quantities of fluid were withdrawn, whereupon the vomiting and singultus ceased at once. The patient slept the night through, and on awakening next morning had a spontaneous stool. He now expressed hunger and retained all his food. On the same evening, after the third irrigation, a fluid, yellow stool was spontaneously discharged, and a stool was had regularly for ten days thereafter. On the eleventh day the signs of collapse reappeared, and the patient suffered gradual emaciation, with death at the end of one month. The *post-mortem* revealed diffused tubercular peritonitis, marked more especially about the coecum. But the stenosis had been entirely and permanently overcome.

Senator reported also two additional cases—one of carcinoma, which was relieved in the same way, and one a typical acute occlusion, which was absolutely cured.

Rosenthal reported in the discussion of this subject before the Berlin Medical Society, the case of a patient affected with gall-stone colic, which he had had under observation fourteen years before. Having noticed the calmative effect of a profuse spontaneous emesis, he was led to wash out the stomach on one occasion, and observed entire relief of all the distress. The patient ceased vomiting at once. The treatment was continued for several days, the patient presenting herself, for the purpose, daily at the office of the physician, until the gall-stone was discharged. He had had an exactly similar case since. But in both these cases there was no occlusion of the bowels.

During this discussion Fraenkel mentioned a recent case of occlusion, with constipation of seventeen days and stercoraceous vomiting of ten days, wherein a spontaneous stool occurred after the discharge by vomiting of an immense quantity of fluid.

The explanation of the singular efficacy of emptying and irrigating of the stomach in relief of ileus is very simple.

In the first place, the evacuation of the half a gallon or so of fluid and gas which accumulates in the stomach alone, makes room in the abdomen for the movements of the bowels. It is well known that the stomach is so distended in these cases as to constitute a great tumor in the abdominal cavity, which weighs down upon the other viscera.

Secondly, not only the stomach, but the whole bowel, down to the seat of the occlusion (which is nearly always in the colon), is also emptied out. That is, there is, in nearly all cases of occlusion, incontinence of the pylorus. Oser, of Vienna, long ago, 1879 (*Wien. Med. bl.*, No. 48, 1880), showed that pyloric incontinence exists in certain cases of intestinal stenosis, and showed, moreover, experimentally upon dogs, how light a hydrostatic pressure would overcome the natural constriction of the pylorus when brought to bear upon it from the duodenum. In this way great space is afforded for the natural peristaltic movements of the bowels.

But in the third place, and chiefly, the emptying of the bowel of its irritating contents, relieves the spasm of the bowels and substitutes for its telanic contraction the gentle, natural, vermicular movements which enabled the entangled or occluded gut to untie, untwist or relieve itself from its imprisonment. In this way is, at times, avoided or evaded the nipping of the gut, with the extreme, immediate danger of the "shock of strangulation." Then, lastly, the cleansing of the surface of the bowels in more chronic cases renders possible the physiological processes of digestion and absorption held in entire abeyance before.

Ewald is inclined, with Senator, to invoke the influence of the nervous system also, in explaining the quick relief afforded by this operation. These authors, recognizing that the splanchnic nerves contain inhibitory as well as exciting fibres, are inclined to the view that the evacuation of the acrid contents of the bowel enables the peristaltic exciting fibres to get control of the inhibitory fibres, and thus substitute natural peristaltic for paralytic phenomena. They call attention to the ominous calm which supervenes in these cases before death, and liken it to the absolute paralysis of the sphincter ani in cases of extended invaginations.

I may take this occasion to state that this manœuver is not new in medicine, and the credit of its first use in acute occlusion of the intestines does not belong to the authors who have recently recorded their experience with it in foreign journals. I had occasion to report the adoption of this method to the Cincinnati Academy of Medicine, April 26, 1880 (*Cincinnati Lancet and Clinic*, May 8, 1880), in a fatal case of occlusion by compression of an omentum enormously overloaded with fat. I quote from the report as published: "The specimen was removed by the speaker and Dr. Ranschoff from the body of a man, æt. 78, in previous good health, excepting occasional constipation, who was seized suddenly last Monday noon with violent pain in the stomach and abdomen. The pain was somewhat relieved for the time by hypodermic injections of morphia and by the injection, per rectum, of a quart of hot water, which was followed by the discharge of a considerable quantity of feculent matter. On the next morning supervened intolerable vomiting, at first of the contents of the stomach, and later of thin, acid, dark brown, almost black matter, consisting of bile and apparently disorganized blood like 'black vomit.' The patient vomited continually. The sleep which would have ensued upon the repeated use of the morphia was prevented by the persistent efforts at vomiting. The regurgitation was so continuous as to arouse the patient and cause choking. An elastic tube was introduced into the stomach, and by the aid of a stomach pump about a quart of thin, brownish-black fluid was easily removed. The stomach was then thoroughly washed out with hot water, the whole operation being performed in less than three minutes, and with little or no discomfort to the patient. The operation gave such great relief that the patient fell into his first natural sleep. It lasted, however, but ten hours, when the stomach filled up again and the pain and vomiting returned. In the evening of the same day the stomach was again washed out, but this time only about a pint of fluid could be withdrawn. After this second operation there was no return of the vomiting, though small quantities of the fluid were occasionally expectorated."

Though this case terminated under the shock of strangulation in 42 hours, the operation and the relief afforded by it were as striking as in any case since reported. Cure of the case was out of the question under the circumstances, but relief of one of the worst symptoms, the "miserere," was prompt and permanent. I am led to mention the case, not with a view to claim of priority of the manœuver, and not because the treatment in this case was made the subject of unjust aspersion in an editorial of a prominent daily paper of this city, but because it did not meet with full indorsement by my colleagues in the discussion of the case. From the numerous reports that have been made since of the value of this method, I am now convinced that this operation was the only proper treatment of the case short of laparotomy. So far as I now know, irrigation of the stomach, in intestinal obstruction, was first employed by Dr. J. L. Cleveland, of this city, who remarked in the discussion of the case last reported, that "he wished to emphasize the propriety of using the stomach pump in cases of this kind. Four or five years ago he had under observation a case of perityphlitis with obstruction, in which the employment of the stomach pump had given the greatest satisfaction. The stomach had in this way been freed of a large amount of fluid and gas, to the great relief of the patient."

The objections to the use of the evacuating tube are wholly theoretical. From his extensive observations, Haenisch, of Greifswald, reports no possible danger, except in cases of gastric ulcer. The slight abrasions sometimes produced heal in the course of a few days.

I have, myself, no doubt that the general knowledge of the efficacy of this method of treating ileus will lead to a rapid multiplication of cases relieved permanently when such relief is possible, as from my own limited observation I am led to look upon it as the most important contribution to the therapy of this dreadful disease made in the last decade.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French by Dr. Illowy, Cincinnati, Ohio.

MURIATE OF COCAINE FOR FISSURED NIPPLES.

IT is well known to all how painful and difficult to heal, are the fissures of the nipple in women compelled to nurse their infants. We have many times seen such women completely reduced and exhausted by their sufferings. A remedy capable of amending this state and of healing, will receive the benedictions of the unfortunate ones. It seems we must again have recourse to the muriate of cocaine, according to the opinion of Dr. A. Morfau, who makes this statement in the *Therapeutique Cotemporaine.*

Our patient has been delivered of her third child; she has nursed the first two, and is very anxious to nurse the third one. On the third day after confinement, the nipples presented fissures at their base, at the level of their union with the areola; there were moreover two erosions on the summit. Nursing became so painful that she was obliged to stop, and the child was nursed by the nurse of the service. Two days thus passed without the mother being able to give the infant the breast; at the end of that time, the breast was tumefied, hard and painful.

The mother told us that it was only at the beginning of the nursing that the pain was very great; when the suctions proceeded regularly, the pain became less and gradually endurable. It became, therefore, desirable to suppress the atrocious pain of the start, because this passed, nursing was possible. This is what suggested to Dr. Andhoni the idea of employing cocaine, *with a solution of* 1 *to* 20; *we paint the nipple, passing the brush several times over it; we dry it lightly with a compress, and the infant is immediately put to the breast.* The mother tells us that she suffers somewhat, but that the pain she now feels, is not at all comparable to the former atrocious suffering. From eight in the morning to eight in the evening, she has nursed her child five times; she has suffered hardly any. The tumefaction and the hardness have disappeared under the influence of nursing. The infant manifests no repulsiveness to take the painted nipple, which we had taken the precaution to dry lightly, as mentioned above.

According to the statement of the mother, the anæsthesia which we were able to bring about, came on immediately after the application, and disappeared at the end of one or two minutes. We were able to verify the truth of her statement, by testing the sensibility of the nipple by means of a pin.—*L' Union Medicale du Canada.*

PREVENTIVE TREATMENT OF LYMPHANYITIS AND ABSCESSES OF THE BREAST DURING THE NURSING PERIOD.

AMONG the pre-disposing causes of this affection, there must be cited, says Dr. Ressein, primiparitz, vices of conformation of the nipple; the color of the integuments, which causes that blondes, having generally a finer skin, are more subject to them; lastly, the production of a fissure at a previous nursing period.

Among the occasional causes, the principal ones are: a bad state of the infant's mouth, uncleanliness, badly regulated nursing, which keeps the epidermis in a constant state of maceration.

Nevertheless, according to the observation of the author, despite these causes, the lymphanyitis and abscesses of the breast may be avoided by a dressing with boric, made under the following conditions: the strength of the solution is 1 to 100.

When a woman suffers with fissures or cracks of the nipple or of the areola, we apply immediately after each nursing a compress folded four times and soaked in the above-mentioned solution. To prevent the evaporation of the liquid, we place immediately over the compress, a piece of oiled silk, over this a layer of cotton batting; and the whole is maintained in place by means of a body bandage. This layer of cotton and the bandage have the advantage of supporting the breast, and of maintaining a constant and equable temperature. Moreover, the compression which they exercise on the subjacent organ, suffices to prevent the development of pus.

Lastly, the advantage of the boric acid dressing, is that it causes no toxic phenomena in the child.—*L' Union Medicale du Canada.*

The Demand for Early Exploratory Trephining in Depressed Fractures of the Skull.

Read before the Philadelphia County Medical Society.

BY JOHN B. ROBERTS, M. D.,
Professor of Anatomy and Surgery in the Philadelphia Polyclinic.

Reported for the CINCINNATI MEDICAL NEWS.

IN using the term trephining I apply it to all methods of removing portions of the cranial wall, whether by the trephine, saw, burr of the surgical engine, gouge or cutting forceps.

From observation, experience and considerable acquaintance with the literature of the subject, I am convinced that surgeons are induced to decline or postpone the operation of trephining because of a mistaken idea of its serious nature, and a misunderstanding of the reasons for its adoption.

The frequency with which successful trephining was done in past centuries, without the benefit of our improved methods and instruments, and the infrequency of death or serious symptoms from the operation itself at the present day, convince me that, though a capital operation, it is not one having in it many elements of danger. That many deaths occur after trephining is admitted. Such fatal results must often occur, for injury to the skull bones is usually and almost necessarily coincident with disturbance or actual lesion of the brain or its membranes. I believe that more deaths are attributable to non-performance, or delay in resorting to the performance of trephining, than to its adoption. It behooves those who greatly limit the application of the operation, to prove, by citation of cases, that a fatal issue has been induced by the procedure itself in a sufficient number of instances to throw the operation into the class called dangerous. To merely show that many cases of serious skull injury recover without trephining is not sufficient.

Much controversy on this subject would be avoided if the advocates and the opponents of an extended use of trephining would clearly formulate their opinions as to the theory upon which the operation is performed. In my opinion, trephining should be regarded in the light of an exploratory rather than a therapeutic procedure. I incise the scalp, in closed fractures of the skull, not because the incision cures, but because it tells me the condition of the bone, without which knowledge I am unable to treat the patient rationally. The uncertainty of the lesion is, in my opinion, more dangerous to health and life than the conversion of a closed into an open fracture of the skull, because the observation of the profession teaches that open cranial fractures do not resemble, in fatality, similar open fractures of long bones. In truth, I would be willing to make a closed fracture of the thigh or leg an open one, if it was otherwise impossible to replace fragments which were threatening life. If I but learn the character of the skull lesion, I am acquainted with surgical expedients that render restoration to health more probable than the complication due to the incision renders it improbable. Hence I am justified, nay, compelled, by my reason, to advocate exploratory incisions of the scalp in obscure injuries of the skull.

The same line of reasoning forces upon me the conclusion that I should trephine whenever the fracture, whether originally an open one or so made by my incision, presents the possibility of the inner table being detached and splintered more extensively than the outer. In other words, I should cut the scalp to see the condition of the outer table; I should cut the bone to see the condition of the inner table, in every case where the risk of obscure knowledge is greater than the risk of divided scalp and perforated bone.

Many experimental fractures made in the dissecting-room, and observation of cases in the practice of myself and of others, teach me that extensive shattering of the inner table, with only a moderate amount of fracturing of the external table, is of frequent occurrence in other as well as in punctured fractures. I admit that the condition in the dead subject, with its shrunken brain, is different from that in the living; but there is much evidence of the same splintering to be found in the study of accidental and homicidal skull fractures. Punctured fractures have long been treated by early trephining, to avert encephalitis. For the same reason I recommend resort to trephining in more diffused and less accentuated fractures. It is to prevent inflammatory sequences due to splinters forced into the membranes and brain, and to avert the consecutive occurrence of epilepsy and insanity, that the operation should be performed; not because of the fear that symptoms of compression of the brain may arise, nor because necrosis of detached portions of bone may occur.

I am not a believer in the pathology that teaches that the symptoms which we call "compression of the brain" are due to displacing pressure exerted on the brain substance. How can a slight or even a considerable depression of a limited area of bone produce much pressure upon the brain substance? How can the usually limited extravasation of blood under the seat of fracture fatally compress the brain, which is of firmer consistence than the blood itself? A rapidly-acting heart, after violent exercise, will throw enough additional blood into the cerebral vessels to produce more intracranial pressure than the ordinary depressed fracture. The complexus of symptoms called compression of the brain may possibly be the result of a disturbance in the local capillary circulation of the membranes and subjacent nervous tissue; but I can not believe it to be due to compression or displacement of the brain itself. It is more probable that compression symptoms are the results of encephalitis, due to injury from spicules of the inner table, or to the irritation of intracranial bleeding.

As soon as the profession repudiates the idea that brain displacement is what causes compression symptoms, so soon will every surgeon be convinced that early trephining is a proper exploratory procedure in order to determine what measures are demanded to avert encephalic inflammation.

"Compression of the brain," as seen after injury, should be translated "inflammation of the brain," and looked upon as probably due to unrelieved irritation of the brain periphery, from traumatic causes. Not until this is so understood will the discussion as to the utility of trephining in depressed fractures cease.

I repeat, then, that trephining is not a therapeutic but an exploratory operation; and, as such, is demanded with much greater frequency than is usually supposed. If it is to be employed for exploratory and diagnostic purposes, early resort thereto needs no defense.

When about to use the trephine itself for perforating the skull, to allow elevation and extraction of fragments, the surgeon should select a small, conical instrument; one not over three-eighths of an inch in outside diameter at the cutting end is large enough. Those usually kept by the instrument-makers are too large. It is only necessary to bore an opening sufficiently large to admit the end of the elevator; hence a small trephine is always more proper than a large one, except in those comparatively rare cases where a large disk is to be removed *over* the line of an old depressed fracture. Recently, I visited the four principal instrument-makers of Philadelphia, and could not find in stock any trephine as small as that which I recommend. The belief which has caused trephines to be made so large is founded on an erroneous theory.

In recent depressed fractures the trephine crown should be applied upon the solid bone, and should overlap the *least* depressed edge of the displaced fragment. This allows more ready elevation or extraction by means of the elevator, because the *most* depressed edge is very frequently beveled, with the inner table broken at a more distant spot, and is thereby wedged under the solid portion of the skull at that side. Elevation at the least depressed edge is effected more readily and with less danger to the brain from the manipulation.

To conclude, I assert that in all subcutaneous injuries of the head, with possible existence of depressed fracture, an immediate exploratory incision should be made in the scalp. In all instances of depressed fracture, with *possible* existence of splintering and spiculation of the inner table, an immediate exploratory trephining of the skull should be done.

Why Use Spectacles?

R. R. HOPKINS, M.D., NORTH LIBERTY, ADAMS COUNTY, O.

WITH most persons there is an epoch in life when the eyes become slightly flattened. It arises, probably, from a diminished activity of the secreting vessels; the consequence is, that the globe is not kept quite as completely distended with fluids as in youth and middle age. There is thus an elongated axis of vision. A book is held farther off to be read; finally becoming more flattened by the same inactivity within, the difficulty is met by putting on convex glasses; this is the waning vision of man. If, however, when that advancing imperfection is first realized, the individual persists in the attempt to keep the book in the old focus of vision, even if he reads under perplexing disadvantages, never relaxing, but perseveringly proceeding just as he did when his eyes were in the meridian of their perfection, the slack vessels will at last come up to his assistance, and the original focal distance will be re-established. This statement will unquestionably be combated energetically by those who use glassss; but it will be a waste of forensic power, because the fact is established beyond cavil. We do not pretend it will be successful in every instance; but generally, if glasses are once resorted to, then the opportunity of doing without them is forever lost. Very aged men may be noticed reading fine print; and ladies, too, by scores, who resisted glasses at the age of life referred to, who enjoy all the comforts of distinct vision; and they will, until, like the chaise, every stick in the vehicle falls to pieces at the same time. Therefore, begin with a firm resolution never to use glasses of any kind for reading or writing. The ancients knew nothing about such contrivances; if they had, there would have been poor eyes in abundance, and oculists to meet the emergency. Cicero never complained of imperfect vision at the age of sixty-three years; he even wrote his last letter by torchlight, on the eve of being put to death by the waiting soldiers. Humboldt died at ninety-two, having never been embarrassed with any kind of glasses. John Q. Adams, illustrious for scholarship, at a ripe old age, saw without them. Indeed, it would be a laborious enterprise to collect a catalogue of names in the chronicle of literary fame, of men and women, who were independent of glasses; and just see the thousands of young men and women ruining their eyes because it is fashionable to wear them!

CANNABIS INDICA AS A LOCAL ANÆSTHETIC.—A. Aaronson writes, in the *British Journal of Dental Science*, that tincture of cannabis indica, as a local anæsthetic, is perfectly satisfactory. He has extracted with its aid as many as twenty-two teeth and stumps at one sitting. His plan is to dilute the tincture some three to five times, according to the probable duration of the operation. The diluted tincture is then applied in cotton-wool to cavities, if such exist, and also about the gums of the affected teeth. The beaks of the extracting forceps are also, after being warmed, dipped in the diluted tincture. In cold weather it is wise to dilute the cannabis indica.

Selections.

Gastralgia.

CLINICAL lecture by DR. WM. PEPPER, published in *Medical Times:*

This man, a farmer, aged 39 years, has been sick for two years. His principal complaint is of pain in the left side. He has lived in a healthy locality, and has never had chills and fever. The pain begins in the left side and runs back to the left shoulder-blade. If he eats too much he suffers, but the kind of food taken does not appear to influence the pain. An ordinary meal does not make the pain worse, and eating sometimes takes away the bad feelings. Active exercise or riding over a rough road is apt to bring on the pain. The appetite is fair. The bowels are sometimes constipated, but as a rule he has diarrhœa about twice a week, there being two or three loose stools, but these contain no blood. He weighs one hundred and fifty pounds. His best weight was one hundred and sixty-two pounds, but during the summer he goes as low as one hundred and forty pounds.

Let me here refer to this matter of variation of weight. Many persons will be met with who have a wide range of what may be called normal weight. I never like to see this symptom, for it seems to me that those persons who lose flesh so rapidly can not be made of very good stuff. A person whose flesh is solid and who is living a correct life should maintain pretty nearly the same weight summer and winter, varying perhaps from three to five pounds. Persons will, however, be found whose weight varies twelve or fifteen pounds at different periods of the year. With such persons I have observed that sickness goes hard; on the other hand, loss of weight in them is not to be regarded as of such serious moment as it would be in a person who was thoroughly in training and whose flesh was solid and well organized.

In reference to the pain complained of, when this pain is in the right side, we naturally suspect some trouble with the liver—a gall-stone in one of the smaller ducts or in the gall-bladder; some congestion of the liver, causing dragging on the suspensory ligament, or irritation of the capsule of the organ. When the pain occurs on the left side, we think of the spleen, the pleura, and heart, and when, as in this man, the pain associates with some shortness of breathing and overaction of the heart, we are apt to think more particularly of the heart. Examination of the heart shows it to be perfectly normal. There is no enlargement of the organ, no displacement of the apex-beat, and the valvular sounds are free from murmur. Neither is there any evidence of chronic pleurisy. There is good respiratory murmur and resonance over the left side. Examination of the spleen shows that the organ is not enlarged, and the man has not lived in a malarious district.

Before satisfying ourselves that this is merely a neuralgic trouble (possibly a form of gastralgia), some obscure conditions must be thought of. One of the most insidious of these, and one against which we should be continually on our guard, is caries of the spine. Caries of the anterior surface of the vertebræ constantly reveals itself by pain and distress in the neighborhood of the spinal column. Many cases of sciatica or intercostal neuralgia will be found to be due to caries of the anterior surface of the vertebræ, and the diagnosis should not be made until a sudden increase of the symptoms, with some numbness and failure of power in the lower extremities or the appearance of an angular projection, calls attention to the real cause of the trouble. You will do well to be on your guard against the occurrence of this obscure lesion. Aneurism of the descending aorta is another condition to be excluded.

There is no tenderness along the spine, neither is there any projection of the vertebræ, and jumping does not cause pain. No pulsation, thrill, or abnormal dullness can be detected. Caries of the spine and aneurism may therefore be excluded.

You observe that the pain is described as occurring in the right side and over the stomach; it is not markedly affected by eating, although radishes and some other articles make it worse, and it is worse when the stomach is empty than it is after an ordinary meal. It is associated with evidence of derangement of intestinal digestion, as shown by flatulence and irregular action of the bowels, sometimes constipation and sometimes transient attacks of diarrhœa. Having excluded the graver causes for this pain, we must conclude that it is neuralgic and occupies the stomach, and therefore a form of gastralgia.

As to the cause of this, the family history is good, and he has had good health until this affection developed. He does not use liquor or tobacco; he has not been overworked, but has gotten into the habit of eating his meals hurriedly. The gastralgia has probably been brought on by this rapid eating.

In the treatment of gastralgia the regulation of the diet is the chief element. The stomach is rarely able to receive and handle enough of food in three meals to support the system; consequently it is important that such patients should take more than three meals in the twenty-four hours.

Again, the stomach is so hyperæsthetic and the mucous membrane so irritable that unless some digestible substance is in the stomach the acid juices are apt to excite pain, and hence the pain is more marked when the stomach is empty, and the ingestion of food affords relief; so that for this purpose, also, it is desirable to give food oftener than three times a day. Meals of smaller amount, and of extremely simple character, and at shorter intervals, is the rule for the nourishment of gastralgic patients.

The character of the food requires very close attention. In general, it will be found that milk is one of the best ways in which to give nitrogenous and albuminoid food. The starchy foods are, as a rule, well borne, particularly because they do not require much gastric digestion, being digested, as you know, by the salivary, intestinal and pancreatic fluids. At times, however, the starchy foods lead to the development of secondary acids in the stomach, in which case it becomes necessary to diminish the amount of starch allowed and increase the amount of skim-milk, the patient being practically placed on an exclusive milk diet for a certain length of time. Alkalies are often desirable, and lime-water mixed with the milk is a convenient way of administering these.

I shall recommend for this man the following dietary:

Breakfast.—Soft-boiled egg, oatmeal, bread and butter, and milk with lime-water. Between breakfast and dinner, a glass of milk and lime-water.

Dinner.—Potatoes, bread and butter, milk and lime-water, but no meat. Between dinner and supper, a glass of milk and lime-water.

Supper.—Mush and milk, with milk and lime-water to drink.

In selecting the remedies to be associated with this diet, you will be governed by your appreciation of the state of the mucous membrane more than by anything else. If there is no evidence of gastric catarrh, if there is simply the hyperæsthetic neuralgia and anæmic condition of the stomach, iron, arsenic, and belladonna may be given at once with confidence, the stomach being sheathed with bismuth taken at proper intervals after eating. Under such circumstances, a pill containing the following might be given: ℞. Quiniæ sulph., gr. j.; acidi arseniosni, gr. $\frac{1}{50}$; pil. ferri carb., gr. j.; ext. belladonnæ, gr. $\frac{1}{10}$; M. et ft. pil. no. I. Sig.—To be taken after food, three times a day.

Any of the vegetable salts of iron may be substituted for the pill of the carbonate. In addition to this, ten grains of bismuth should be given two hours later, to protect the stomach when most empty.

If there be a catarrhal condition of the mucous membrane, as shown by a coated tongue, distress in the stomach, in addition to the paroxysmal pain and evidences of dyspeptic trouble, we are obliged to adapt our remedies to this condition, postponing the use of anti-neuralgic remedies until the inflammation of the mucous membrane is relieved. In such cases, bismuth with pepsin, dilute mineral acids, carbolic acid, and salts of silver become exceedingly valuable for their antacid, sedative, and alterative properties.

For this patient, having directed a careful diet with an alkali, we shall order minute doses of nitrate of silver with belladonna.

Two weeks later, the patient reported much improved, and the pill of quinine, arsenious acid, and iron above given was substituted for the nitrate of silver, the same diet being continued.

Care of Typhoid Fever.

The following are a few of the points made by Dr. J. B. Johnson in *Med. and Surg. Reporter:*

The patient should be placed in a large and well-ventilated room, containing only furniture enough for the comfort of the patient and the convenience of the nurse. The most airy room farthest from the ground floor is the best. Such a room is usually the freest from communication with the family, and will not only be most likely to insure plenty of pure air, but freedom from annoyance of the bustle and noise consequent upon the performance of household duties. No medicine whatever to act on the bowels other than the gentlest laxative should be given. Frequently individuals do themselves great injury by taking cathartic medicine in the beginning of the disease, and excite an irritation of the bowels that often requires days to subdue. The physician frequently finds a very good case of typhoid fever spoiled by the patient having taken inordinate doses of calomel, castor oil, or compound cathartic pills, under the false impression that the disease can be carried off by purgation; but this is a very grave case, and now and then renders a case fatal. The constipation can be readily overcome by giving one grain of calomel in combination with one grain of rhubarb every hour or two until the bowels are moved. Inflammation of the bowels is always a serious complication, and a wise care does nothing to excite and everything to avoid it; and when looseness of the bowels occurs, with or without blood, and adds to the patient's debility, I do not hesitate to give a pill after each action, composed of one-eighth of a grain of sulphate of morphia, one grain of powdered opium, and one grain and a half of sugar of lead. The action of this pill does not often disappoint me, particularly when given after each action, and continued at longer intervals after the looseness of the bowels has been checked. The patient is usually delirious, and when so, some one should always be with him. He should not be left alone for a moment; for sometimes, when alone, he will get out of bed and try to make his escape, and in making the effort frequently hurts himself by falls or other injuries. Nothing has appeared to me to calm this disturbance of the brain so readily as five grains of bromide of potassium and two drops of tincture of iodine in a half ounce of sweetened camphor water every hour or two during its continuance. The hair should be cut closely to the scalp in the beginning of the fever, and the patient and his friends will not object to this, if told that the hair will, of itself, fall out on the disappearance of the fever. Cutting off the hair calms the patient, and allows a free application of cold cloths, and when the fever is high, no expedient so soothes as pouring, three or four times a day, two or three pitcherfuls of iced water upon the head. This can be accomplished by holding the head over a bucket at the side of the bed, and the patient becomes so pleased with the operation that he will make no resistance to its repetition. When the hands are dry and hot, the whole body can be cooled by placing them in a towel wetted with iced water. These are slight duties, and can be repeated four or five times a day, and will add much to the means of calming the delirium and cooling the body. In the beginning of typhoid fever, and during its progress, there is more or less inflammation of the lungs, and this condition is not only indicated by a short, hacking and frequent cough, but by the usual physical signs. This complication should be closely watched, for when serious the delirium is increased, and much danger added to the case. A teaspoonful of a mixture containing one drachm of iodide of potassium, twenty drops of tincture veratrum viride, one drachm of chlorate of potash, thirty drops of fluid extract of ipecac, and twenty-five drops of fluid extract of lobelia, in four ounces of sweetened water, every hour or two, has a fine effect in allaying the inflammation and irritation about the lungs, and making the patient comfortable. The local abstraction of blood, the administration of quinine, and the application of blisters, when properly indicated and timely used, are most powerful aids in the treatment of typhoid fever; and when intelligently administered, do, in many cases, much toward helping the patient to recover by their influence over complications; but the proposition to doctor the fever itself by scruple-doses of quinine, the wet sheet, and iced bath, is too extraordinary to call forth serious consideration.

Importance of Diet.—In consequence of the more or less trouble which is so apt to arise from an inflamed state of the bowels, no part of the care of a case of typhoid fever is of more importance than that of the diet; and neglect in this particular augments seriously the uncontrollable nature of the disease. The patient should not be allowed any other article of diet than pure fresh milk. No other drink except water should be permitted The milk can be given iced or warm, in quantities varying from a half to a glassful at regular intervals of two or three hours, allowing the quantity consumed in twenty-four hours to be from one to three quarts. The great advantage of milk is, that it is food already prepared by nature for the most delicate stomachs, and that, to a greater extent than any other known substance, possesses superior qualities so necessary to supply the waste of the body produced by the fever. Such mixtures as beef-tea or chicken soup should not be given during the presence of the fever. They are not only not digested, but act as an irritant, and frequently excite and continue diarrhœa. Wine, whisky and brandy become, sometimes, of indispensable utility in extreme conditions of debility; but the probability is, that in no fever are the compounds of alcohol used with so little judgment as in this. In mild cases of medium severity, they should not be given at all; and when given, they should be administered as medicine, in definite quantities and at stated intervals. As a rule, stimulants are not allowed unless the pulse at the wrist is weak and feeble, and counts one hundred and twenty a minute; and if, after their administration, the patient becomes flushed and excited, the quantity should be diminished and given at longer intervals, and discontinued as soon as the emergency for their use passes off.

The patient should be kept both quiet and clean. His friends should be frankly told that the duration of his fever will probably be three weeks. This information will diminish their anxiety and increase their patience. Quiet and cleanliness are the essential products of good nursing, and without them the sick chamber is deprived of its principal comforts. No visitors should be allowed in the sick room. The patient should be freed, as much as possible, from noise and annoyance, and the most scrupulous cleanliness in regard to his clothes and bedding assiduously maintained. If very ill and helpless, two beds instead of one, placed side by side, should be used for the purpose of maintaining comfort and cleanliness. All soiled clothing of both the patient and the bed should be removed and placed in a tub of cold water as soon as they become soiled, and all discharges immediately carried out and disposed of, and the vessels so used well disinfected with carbolic acid after each emptying of them. These precautions not only add much to the ease of the patient, but contribute greatly to the protection of those within the house against the power of infection. This cautious care must be unremittingly continued during the progress of the disease; and when convalescence begins, the patient must not be allowed to return to ordinary diet and usual exercise for at least two weeks after the subsidence of all typhoid symptoms. The retreat of the fever leaves the mucous membrane of the stomach and bowels in a most delicate condition, and its sensitiveness will not tolerate the slightest temerity in taking food. A single error or imprudence in diet sometimes produces immediate death, or weeks of suffering from a dangerous and tedious relapse.

Therefore, the convalescent should live upon the blandest diet. For the first two weeks he should be allowed nothing more difficult of digestion than milk, beef-tea, light broths made of chicken or lamb, rice, toast, and soft-boiled eggs, and these ought to be taken in moderate quantities and at regular intervals. Should the milk curdle in the stomach, the addition of a couple of tablespoonfuls of lime-water to each half-pint of milk will correct any liability of the milk to disagree, and insure a safe and nutritious diet.

Treatment of Sick Headache.

Dr. Richard G. Jack reports this instructive case in the *Lancet:*

Mrs. N., aged 26, married, two children, had all her adult life suffered to some extent at the periods, and also was troubled with what is commonly called "sick-headache." She was treated by various doctors in the Western States of America, and at length she sought the advice of Dr. Thomas, of New York. He came to the conclusion that the only possible relief was to be obtained by removal of the ovaries; that she was then too much broken down for the operation; but after a trip to Europe had set up her health, he would, on her return, operate. I first saw the patient in June, 1883. She was then in the second day of the period, and under one of her headaches. These begin in one side of the head, and the pain gradually increases until the patient loses consciousness; the limbs become rigid, the hands clenched, the eyes half open and turned up, and shivering fits come on every few minutes. At other times the attack takes the form of spasm of the glottis. Seeing her first in one of her severe attacks, I introduced my hypodermic needle, and injected one-sixth of a grain of morphine. I left the needle in, and in seven seconds relief was obtained; but as it was not complete, at the end of five minutes I gave the same quantity, and withdrew the needle. The pain subsided, and did not return during that period, but the patient suffered from severe sickness, which lasted thirty hours. In a few days I ordered iron and quinine, with shower-baths, good food, and early hours. When the next period was expected, I gave belladonna and bromide of potassium. As soon as the period came on, I kept the patient in bed, applied a blister of the size of half-a-crown over each ovary, and ordered a morphia pessary at night. The period passed over without a sign of pain or trouble. The tonic treatment was resumed, and the patient's health was steadily improved. The next period was anticipated a day or two with the belladonna and bromide, and when the flow began she was kept in bed the first day with half a mustard leaf over each ovary. No pain; period normal. On the next occasion, feeling the restraint irksome, and forgetting the date, the patient went to a theatre on the very night of the return of the period, and at I A. M. I was sent for. I injected one-third of a grain of morphia; the relief was instantaneous, and by increasing the dose to half a grain the sickness diminished. I tried the addition of atropine, but without effect. By persistence in the treatment, essentially the hypodermic, the patient is freed from headache, and no longer looks sick in mind and sick in body, having regained color in her cheeks. I have repeatedly seen the same good effect in ordinary sick-headache, either from hypodermic injection of morphia or from a dose of chlorodyne.—*Med. and. Surg. Reporter.*

Report on Progress of Medicine.

BY DR. J. R. L. CLARKSON, MOBERLY, MO.

Read before the Moberly District Medical Association, February, 1885.

Having been appointed one of the committee on progress, and medicine and therapeutics being assigned to me, I respectfully submit the following. Of the many things new which have fallen under my observation, I have endeavored to present such as I think promise good practical results. A very important discovery is the application of hydrochlorate of cocaine as a local anesthetic. It is used by the application of a two or four per cent solution to the part, or by hypodermic injection into the skin, or mucous membrane, or under them. It has been chiefly used on the mucous membrane of the eye and the throat. There is a little smarting at first, which soon passes off, and insensibility comes on in from three to twenty minutes. In great inflammation and pain, a second or even a third application may be necessary. The anesthesia is so complete as to allow the eyeball to be handled with forceps without pain. This, with the dilation of the pupil, passes off in a few hours at most. For operation on the eye and throat this article seems to be invaluable. In addition to its anesthetic powers it has curative effects on diseased mucous membranes, and even where it did not produce entire insensibility, it relieved inflammation by causing contraction of the blood-vessels, but it is not considered equal to eserine for this purpose. When taken internally it is said to act as a narcotic, but it is more probable it acts as a euphoric. It in all probability produces a greater or less degree of insensibility of the mucous membrane of the stomach, and this may account for the use of the leaves of the plant by the natives of Bolivia to enable them to endure hunger and fatigue. But this again may be on account of its euphoric power. It has proved useful in nasal catarrh, used as a snuff, or the solution as a spray; in dsymenorrhea, applied to the os tincæ, it allays pain in a sensitive vagina; also the pain caused by the use of caustics; and I think it will prove a valuable remedy in gonorrhea and dysuria. Its uses in surgical operations will probably be reported by another member of the committee. Its high price, seventy-five cents a grain, will no doubt curtail its use, and it will no doubt continue high, for the best leaves are seventy-five cents per pound in their native country, and only yield one-fifth of one per cent of the active principle.

Nitro-glycerine has acquired a high reputation for the cure of angina pectoris. I tried it in two cases with good results. It produces a sense of fullness in the head; and is said to increase the flow of blood to the brain. In that way it cures anemic headache. I have not tried it, but think it would be valuable in syncope and in cases in which too much chloroform had been given, or in which bad effects followed the use of that drug even in moderate quantities.

At our last meeting I presented a clinical case, which the committee appointed to examine it pronounced spinal irritation, and recommended the use of ergot and bromide of potassium. I put the patient on that treatment and kept him on it for two weeks with no perceptible benefit. I had previously tried all the remedies usually given in that disease, without benefit. So when the ergot and bromide of potassium failed, I prescribed fl. ex. piscidia, in twenty-five-drop doses, four times a day. In three days he was much better, and in two weeks he could work about half the time, and in two more weeks he was so well that he ceased his visits.

I have used piscidia for over three years, and have had it fail but once. In urgent and violent cases, requiring a narcotic, I have not tried to substitute it for opium. But in chronic cases, and when the pain is not very severe, and when there is no diarrhea, I use it in preference to any other narcotic, and generally with the happiest results. Two cases are reported of its having produced convulsions when given in not very large doses. I have not seen any bad results from it, but sixty drops is as much as I have ever given at once; although two drachms are sometimes given. It is not followed by nausea, depression nor constipation. It relieves the pain and produces what seems to be a perfectly natural sleep. It does not create an appetite for itself. I have used it for neuralgia, dysuria, pain in the stomach and bowels and head; indeed for pain in almost every part of the body. In insomnia I look on it as a blessing to humanity.

The strong probability of the advent of cholera this next summer has turned attention to that terrible disease. Its ravages in Marseilles, Toulon and Paris, and in a large part of Italy, afforded a fine opportunity for scientific investigation; yet little progress has been made in determining its cause, pathology or treatment.

Koch, the distinguished German scientist, visited Egypt and France for the sole purpose of investigating cholera. He thinks he has discovered the cause in what he calls the cholera bacillus, described as being the shape of a comma. He cultivated them, but was not able to produce choleraic symptoms by introducing them into other animals. He claimed they were only found in cholera patients or in connection with them. But this is denied by many investigators. Dr. Timothy Lewis, of Netly, says they are ordinarily present in the mouths of perfectly healthy persons.

As to treatment it is hardly claimed that there has been any advancement at all. There is a theory that cholera only exists where the people use water more or less impregnated with lime, or what is called limestone water. I mention this because if it is true, it is of immense practical value. I have had so many facts presented to me in favor of this theory, and it is of so much importance to us all if we have cholera to deal with, that I feel justified in presenting it here. I have had experience in two epidemics of cholera. I found the first, or diarrheal stage, nearly always curable. It usually lasts from twelve to twenty-four hours, before vomiting commences. A purgative dose of calomel, with some preparation of opium, usually checks the disease. Of course there are cases not ushered in by diarrhea.

While we have made little progress in the pathology and treatment of this disease, we have made progress in its prevention. Most writers think the germs are carried in water, by the hands of those who are near cholera patients, or by any other solid article, from the patient to the mouth and thence into the stomach and intestines; and that these germs do not float in the air. If this be true, it is a matter of the greatest importance, for it enables us to prevent, or at least curtail, the spread of the disease. Water should not be used from wells that have surface drainage. If no other water is to be had, the well should not be near any privy, cesspool, sewer or drain or drainage pipe. All dejections should be thoroughly disinfected or burned, or buried a long distance from the well. The attendants' bodies and clothes should be disinfected, as well as the bed, bedding and room of the patient. On the other hand, if the germs float in the air, we have no way of preventing the disease spreading, except by prophylactics. Very dilute sulhuric acid is said to be one.

Of therapeutic progress Dr. Squibbs makes the following notes in a recent paper:

Physicians are taking greater care of patients and guiding them to recovery, rather than attempting to cure the disease.

More now than formerly they give remedies to secure definite effects, and are not so much trammeled by arbitrary doses.

They take greater care to secure pure drugs and use them in more concentrated forms, especially as fluid extracts.

Acute Bright's Disease.

Dr. TYSON, in a clinical lecture published in *Med. and Surg. Reporter*, speaks on the subject of treatment as follows:

Treatment.—A large number of acute cases will get well, if simply put to bed, kept quiet, and fed on milk. The irritability of the nervous system is increased in these cases; hence we must be very careful not to irritate the stomach by unsuitable food, as this, reacting on the nervous system, may cause convulsions. Warmth in bed will favor the action of the skin, which will be aided by flannel underclothing. When first called to a case of acute Bright's disease, he gives a brisk purge; it is folly to give diuretics until you have given the purge, because they will not act. The purge may be citrate of magnesia, epsom salts, cream of tartar, or compound jalap powder. After the purge has acted, we can safely favor the action of the kidneys; but before giving any internal remedy for this purpose, he resorts to counter-irritation, with mustard plasters, cupping, or poultices over the loins. Of diuretics, he prefers digitalis, especially the infusion; the tincture is generally good, but is sometimes unreliable. To an adult we may give from two drachms to half an ounce, three or four times a day; digitalis is most useful in large doses at long intervals. To a child of eight years of age, he would not be afraid to give one drachm of the infusion, three or four times a day, carefully watching the pulse, however; when it is brought down, he would cut off the dose. Water is one of our best diuretics; to which the citrate, acetate, or bicarbonate of potash makes a good addition; we may give from fifteen to twenty grains of either in half a tumbler of water every three or four hours; free dilution greatly aids the action of these salts. In most cases this treatment will be sufficient; when complications arise they must be treated. The most alarming of the complications is uræmia. When the urine is scanty or suppressed, we must look out for uræmia, and give brisk purgatives, with diuretics and sweet spirits of nitre to aid the skin in its vicarious function. When convulsions have supervened, of course the patient can not swallow; if the pulse is full and bounding, he would bleed; only last night he had a case of convulsions, in a boy eight years old, that had lasted eighteen hours; he took away eight ounces of blood, with most excellent results. Urea-charged blood causes the convulsions; by bleeding we remove some of this urea, and we also relieve the tension of the vascular system. We can also put a drop of croton oil, mixed with a little sweet oil, on the tongue. Jaborandi is sometimes very useful; as the patient, under these circumstances, can not swallow, we must give it hypodermically; 1/6 to 1/2 grain of pilocarpine (the active principle of jaborandi) will produce diaphoresis in fifteen minutes. In the adult we may use from 1/3 to 1/4 of a grain, though the dose must be regulated according to the physique of the patient, as it is a depressing drug, though Dr. Tyson is fearless of it, since he has never had any accident from its use. To a child of eight years, he would give from $\frac{1}{10}$ to $\frac{1}{8}$ of a grain. It acts so promptly that we can afford to commence with very small doses and repeat them. It may be used by enema—taking two drachms of jaborandi leaves to one pint of hot water, steep for a few minutes, strain and inject four ounces, and repeat in fifteen minutes if no sweating has been produced. He has never known jaborandi to fail to produce diaphoresis.

Therapeutic Notes.

NEUTRAL MIXTURE FOR FEVERS.—Professor Brinton speaks highly of the following neutral mixture in fevers of moderate type:

℞.	Liquor ammonii acetatis	℥j.
	Liquor potassi citratis	℥j.
	Spiritus ætheris nitrosi	℥ss.
	Liquor morphi sulphatis	℥ss.

M. Sig. Two teaspoonfuls three or four times a day. If the fever is of a higher type, and the pulse full and bounding, tinctura aconiti radicis xii.–xxiv. may be added to the mixture with advantage.

PARÆSTHESIA—PERVERTED SENSIBILITY OF THE SKIN (Shoemaker).

℞.	Extracti erythroxylii	ʒj.
	Adipis	℥j.

M. Sig. Apply freely to the parts.

PARÆSTHESIA (Shoemaker).

℞.	Napthol	ʒj.
	Extracti belladonnæ	ʒj.
	Adipis	℥j.

M. Sig. Use on the surface until itching and irritation are removed.

IODIZED COLLODION IN ERYSIPELAS. (Walz).

℞.	Sulphuric ether	f℥x.
	Alcohol absol.	f℥x.
	Gun-cotton	ʒij.

M. And when dissolved add iodide ammonia, gr. 80, iodide cadmium, bromide cadmium, āā gr. 40. Bottle tightly for use.

AURAL CATARRH (Kinnier).

℞	Acid carbolic	gr. iv.
	Soda bicarb.	
	Soda biboras	āā gr. xij.
	Glycerine	ʒss.
	Aquæ ad.	f℥j.

M. Ft. lot. ad aurem.

Also:—

℞.	Zinc oxide.	
	Bismuth oxide	āā gr. v.
	Glycerine	ʒss.
	Aquæ ad.	f℥j.

M. Ft. lot.

CATARRHAL BRONCHITIS (Burnly).

℞.	Sodæ bicarb.	ix.
	Ammon. (v. sodii) chlorid.	gr. xxx.
	Succus conii	ʒij.
	Spt. chloroform	*m*cxx.
	Aquæ ad.	℥vj.

M. Sig. Two tablespoonfuls in hot water every six hours.

Also:—

℞.	Copaiba	ʒij.
	Mucil. acacia	ʒvj.
	Spt. chloroform	*m*xxx.
	Aquæ camphora ad.	℥vj.

M. Sig. Two tablespoonfuls three times a day.

A Year's Work in Laparotomy.

DURING the past year Dr. Wm. Goodell has had thirty-two laparotomies. Of these, twenty-two were ovariotomies, eight oophorectomies, one hysterectomy, and one exploratory incision.

Of the twenty-two ovariotomies, ten were performed in the hospital of the University of Pennsylvania, with three deaths; seven at his private hospital, with one death. In eleven both ovaries were removed. Seventeen had adhesions, which, in seven, were very formidable. Four of the women were over sixty years of age, and of these one died. In not a single instance did he refuse to operate, although three of his patients were very ill at the time of the operation.

The causes of death were as follows: An old lady, aged sixty-three, from whom a tumor weighing sixty-five pounds was removed, at the hospital of the University, died suddenly from acute uremia, after doing well for three days. One kidney was found riddled with abscesses, the other was contracted. The second death also occurred at the same hospital, but from peritonitis, caused probably by hospitalism. The third and fourth fatal cases were in advanced stages of septicemia when operated on. Each one had high temperature, frequent pulse, and night-sweats from suppurating cyst. In addition, one was bed-ridden and had bed-sores. The other had greatly swollen legs, although the tumor was a small one. In each the adhesions were universal and very formidable. The former died from shock fifteen minutes after the operation. The latter lived one week. Here was a dermoid cyst which, in his experience, was liable to have extensive and firm attachment, making removal often difficult and dangerous. Dermoid cysts also were very vulnerable, taking on inflammation on the slightest provocation. In this instance a physician had removed some of the fluid with a hypodermic needle. He (Dr. G.) had had two cases of small cyst in Douglas's pouch in which violent inflammation followed the use of the aspirator. The lives of his patients were, for several days, in danger, but, fortunately, they recovered with obliteration of the sac. This should render one cautious about touching a dermoid cyst, unless he is prepared to perform the radical operation.

The fifth death occurred in a case forlorn from the outset. Five years ago Dr. Goodell had removed a very large colloid cyst of the left ovary from this woman. A year ago her health began to fail coincidentally with the appearance of another abdominal tumor, and she was rapidly pulled down. On opening the abdomen, Dr. Goodell found that the cyst had burst some time before, and that a colloid material had escaped in large quantities into the peritoneal cavity. The degeneration was plainly malignant, as the womb, broad ligament, bladder, and the parietal peritoneum were studded with papillomatous masses. Dr. Goodell did not see her again, but her physician, Dr. Bauman, of Telford, wrote that the wound healed perfectly. No abnormal symptoms set in, yet the woman grew weaker and weaker, dying from exhaustion on the sixteenth day after the operation.

Dr. Goodell stated this was the only case in which he had twice performed ovariotomy in the same patient; but that he had at present a lady under treatment from whom, four years ago, he had removed the left ovary for cystic degeneration, and in whom the right ovary is now enlarging, and will need extirpation before long. The liability of the sound ovary becoming diseased amounted, in his cases, to 1.5 per cent., and this strengthened him in the conviction that in women approaching the climacteric both ovaries should, as a rule, with but few exceptions, be removed. That this case made his third one of colloid degeneration in which the sac had burst some time before the operation. In each the disease was evidently malignant. One survived the operation and went home, but died a few weeks later from a reaccumulation of colloid in the abdominal cavity and the sprouting out of a crop of papillomata from the cicatrix in the abdominal wall. In the second one, both ovaries were removed, and from great emaciation and weakness the woman became plump and strong. She did well for two years, when a tumor made its appearance in the left broad ligament. A year later she died after much suffering. From this experience he would look upon colloid cyst with suspicion, and would give a guarded prognosis in respect to ultimate recovery.

With regard to the causation of ovarian cysts, he believed more and more that single life, sterility and unfruitfulness, whether natural or enforced, were important factors. Thus, out of his twenty-two cases, nine were unmarried, and one was a widow. Again, of the married, one was sterile, one had borne but one child, and three had had only two children. During the past year he had also performed eight oophorectomies. Three of these operations had been demanded for excessive menorrhagia and dysmenorrhea from multiple fibroids, and two of them died, the difficulties of the operation being great. The other oophorectomies were performed for pernicious menstruation, ovaralgia and threatened miscarriage, and were successful. In no case did menstruation return, although in one there was a slight show of blood.

Of other laparotomies he had performed two, one of them an exploratory incision in a woman greatly reduced by pain and obstruction of the bowels. Cancer of the pelvic organs was discovered. She died very suddenly from supposed embolism. The other laparotomy was a successful hysterectomy. The tumor weighed thirteen and a half pounds, and consisted of the womb with many large fibroid growths. The adhesions to the abdominal walls, bowels, and omentum presented many difficulties, and needed many ligatures. The stump, which was fully four inches in diameter, was encircled by Koeberle's wire clamp, and treated outside of the peritoneal cavity. The patient recovered slowly, and without a bad symptom.—*Med. Review.*

A Case of Poisoning from Thirty Grains of Chloral Hydrate.*

BY JOSEPH B. POTSDAMER. A. M., M. D., OF PHILADELPHIA.

As dangerous symptoms rarely arise from the administration of thirty grains of chloral hydrate, I deem the notes of the following case of sufficient importance to bring them to your attention this evening:—

J. R., æt. 43, in moderately fair health, has for the last three years been a victim of insomnia, caused by business troubles. For the relief of the sleeplessness, he used the bromide of potassium, until marked bromism was produced and he was advised by a physician to discontinue it. This was about a year ago. He then began to take chloral hydrate. He would buy ten cents' worth of the drug, which, I am informed by several druggists, would be a drachm. This quantity he would divide into four doses, and take one about once in ten days or two weeks, as occasion would demand. On or about the 5th of October he bought, at a drug store, a drachm of Schering's chloral hydrate, dissolved in half an ounce of water, which was labeled "teaspoonful at a dose." On retiring that night, he took half of the above-mentioned solution, that is, two drachms, containing thirty grains of the drug. This, he said, had very little effect upon him.

On the 16th of the same month he retired at about 8 P. M., taking the remaining portion of the solution, that is, the other thirty grains. About 11 P. M., his wife found him in a profound sleep, and, as there was a rattling of mucus in his throat, became alarmed and sent for me. I reached the patient's bedside soon after. Having been informed of the circumstances of the case, I at once proceeded to examine the patient, and found him in the following condition: Thoroughly unconscious; pupils contracted; respirations shallow and slow, about eight per minute; breathing stertorous; fauces full of mucus, giving rise to the rattling; pulse barely perceptible, was unable to count it; heart sounds weak, but regular; extreme coldness of face and extremities.

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* Read before the Philadelphia County Medical Society.

Having understood the family to say the drug had just been taken, I administered twenty grains of the sulphate of zinc in a glass of water, at 11:45 P. M.; applied cold flagellations to the body, and gave strong coffee and whisky. October 17, 12:15 P. M.—Patient not having vomited, gave twenty grains of powdered ipecac in a large quantity of hot water; continued the coffee and made efforts to rouse the patient; at 12:45 P. M. the emetics operated; this was followed by temporary dilation of the pupils; 3 P. M., able to rouse the patient; pupils react slightly to light; 6 A. M., patient, on being roused, talks rationally, but drops off to sleep again; pulse perceptible, one hundred beats per minute; respirations normal, eighteen per minute; 1 P. M., patient sat up for a little while; still very drowsy; 8 P. M., he has been awake since 5 P. M.; complains of headache. October 19, 10 A. M., has had a good night's rest, and feels perfectly well. The treatment previously described, excluding the emetics, was continued through the night.

For a week prior to taking the last dose of chloral, the patient's appetite had been poor, and he ate very little. He was somewhat reduced in strength; this may perhaps explain the action of the drug.—*College and Clin. Record.*

Report of a Case of Ovariotomy.

Read before the Santa Clara County Medical Society, November 6, 1883, by W. H. HAMMOND, M. D., San Jose, Cal.

MISS R., the subject of this paper, a single lady, aged twenty-three years, and a teacher by occupation, first consulted her physician about two months ago. At puberty she had all the symptoms of menstruation except the discharge. Examination showed an imperforate hymen; this incised, gave vent to about a pint of retained menstrual fluids. After this she was quite well until the middle of the present year. About that time she noticed that her abdomen was increasing in size, but attributed it to an increase of adipose tissue.

She suffered no inconvenience at this time, except a dull pain when in a stooping posture. As the tumor increased in size the enlargement attracted the attention of her sister and some of her intimate friends, who prevailed upon her to seek medical advice. After a careful examination her physician diagnosed a tumor, which he believed to be ovarian.

A few days later another physician confirmed the diagnosis.

The patient was informed of the character of her trouble, and that nothing but an operation for its removal would give permanent relief. After a consultation with Dr. J. H. Wythe, of San Francisco, the operation was decided upon, and was set for October 15. The preparatory treatment was begun a few days before the operation, and consisted in rest, warm baths, laxatives, fluid food, and a mixture of iron of quinia.

The last menstruation previous to the operation was four or five days later than usual, and during that time, and until the flow began, the patient suffered considerable pain. For the last two weeks before the operation the patient suffered pain in the region of the tumor, and it was feared that adhesions had already begun.

At 10:40 A. M., on Monday, October 15, everything being in readiness, the patient, cheerful and happy, was placed upon the table and the inhalation of ether begun. The pulse at this time was 100; temp., 99° F.

The operation began at 11 A. M. It was entirely antiseptic, including the spray, and was performed by Dr. J. H. Wythe, assisted by Dr. J. S. Potts, of this city, while the administration of the anæsthetic was entrusted to the writer.

An incision about four or five inches in length was made in the median line. Considerable subcutaneous and subperitoneal adipose tissue was present. The tumor, a multilocular cyst of the left ovary, quite as large as a man's head, was attached only by the left broad ligament of the uterus. The cyst was tapped in three separate places with a Spencer Wells trocar, and eleven pints of fluid removed. The pedicle was transfixed by a strong silk ligature in two places, and severed between them. The toilet of the peritoneum was made with the utmost care, and the stump dropped into the abdominal cavity.

The wound was closed by four deep silver-wire sutures and several superficial ones, a portion of the latter being of silk. By this time the patient had regained partial consciousness, and was placed in bed. The pulse at this time —12:15 P. M.—was 100, and of good quality. The operation proper, *i. e.*, from the first incision to the severing of the pedicle, occupied about thirty-five minutes, while an equal amount of time was consumed in making the toilet of the peritoneum, inserting the sutures and dressing the wound.

At 12:35 P. M., thirty drops of McMunn's elixir of opium were given, and crushed ice, in small quantities, allowed every fifteen minutes.

At 2 P. M. the pulse was 94, temperature 99°, and twenty minutes later the urine was drawn, as the patient was not able to pass it voluntarily. I might here remark that for a week or more before the operation there had been irritability of the bladder, due, no doubt, to the presence of the tumor.

As it would become monotonous to give in detail the record of pulse and temperature, I shall condense by saying that during the first four days these were taken every two or three hours; that both pulse and temperature reached their maximum within twenty-four hours after the operation, being, pulse, 138; temperature, 102⅝; that the pulse, during the first forty-eight hours following the the operation, was entirely out of proportion to the temperature, and was, no doubt, due to shock. The bladder was relieved as often as necessary. McMunn's elixir of opium, in thirty-drop doses, was given every four hours at first, then every six hours, and on the 16th the administration of quinia, grs. iii. every three hours, was begun.

This was continued for twelve hours with very little variation in pulse or temperature, when it was discontinued on account of the nausea it occasioned. The next day quinia was resumed, in hollow suppositories, per rectum. This was continued for twenty-four hours, without any perceptible benefit; and as it was an annoyance to the patient, it was discontinued. No nourishment was taken until thirty-six hours after the operation, when the patient was allowed a little beef-tea. Tympanites showed itself within twelve hours after the operation, and continued to the close of the fourth day.

On Tuesday evening, thirty hours after the operation, the wound was first dressed. It looked well, union by *first intention* having established itself in the upper three-fourths of the incision, while in the lower one-fourth there was some suppuration. It was not dressed again till Thursday evening, forty-eight hours later, when the sutures were all removed. Nourishment was sparingly allowed until the evening of the 19th, after which the patient was allowed to eat freely.

Rapid improvement now took place, and to-day, twenty-two days after the operation, the patient is up and able to walk about her room.—*Pacific Med. and Surg. Jour.*

Opthalmic Notes.

THE use of a five per cent. solution of carbolic acid is strongly recommended by Dr. G. H. Burnham, for treating gonorrhœal opthalmia, as well as all cases where the cornea becomes infiltrated, whether due to ulcers, or when the external surface is unabraded.

The results in gonorrhœal opthalmia are, he claims, always good, and the remedy is a true specific. Under its use, excavations of the cornea heal quickly, and do not progress to perforation.

The course pursued in the treatment of a case of gonorrhœal opthalmia is as follows: The patient is ordered to bed, a large basin of cold water, containing a piece of ice, is always within reach of the patient, who must apply cloths dipped in the cold water to the eye. The lotion, of a strength of 1 to 20, is to be thoroughly applied every hour, night and day. The pain and smarting lasts but a few seconds, and are succeeded by a feeling of relief. As the discharge becomes thinner the 5 per cent. solution is to be used every second hour, and during the intervening hours a 2½ per cent. solution is to be applied. As the virulence of the affection goes on diminishing, the 1 in 40 may be used altogether.

The remedy has, in Dr. Burnham's practice, been very successful in treating purulent infiltration of the cornea subsequent to cataract extraction, with the result of obtaining a perfectly clear cornea with unimpaired sight. It is very necessary to use a very pure carbolic acid, otherwise it may give rise to much needless pain and irritation, which not only interferes with its proper application, but materially lessens its curative properties.

At the meeting of the Heidelberg Opthalmological Society, in September, 1884, the discussion of the treatment of diphtheritic opthalmia elicited the opinion that there is no better treatment known for this formidable affection than iodoform, and when this is properly done the prognosis is favorable.

Dr. G. M. Smith, of Bloomington, reports a case of corutopia in a young woman of twenty-five. The eccentric displacement of the pupils was very marked, and the same in both eyes, and was situated near the temporal part of the corneo scleral margin. The range of accommodation was eight inches; the irides were tremulous; hypermetropia was 6 D.

Glasses ground with their centers corresponding to the centers of the pupils, which were 2⅔ inches apart, enabled the patient to read with both eyes at the same time, which was impossible without them.

Dr. H. Culbertson, of Zanesville, O., describes a case of iridocyclitis (sympathetic) in a previously healthy eye, due to wearing a badly fitting artificial eye in the other orbit from which the eye had been removed by enucleation.

The patient had broken the artificial eye fitted by Dr. C., and had procured another himself, which did not fit him, from a person who did not understand how to adapt such eyes. This eye was too broad at the base vertically, and as a result the lower segment of the eye pressed firmly down into the inferior cul-de-sac, causing the margin of the lower lid to turn inward, and, as a result, producing an elevated ridge running across the lower region of the base of the orbit. This ridge was red and tender to pressure, while the balance of the orbital cavity was pale and free from tenderness. There was no tenderness on firm pressure in the region of the divided optic nerve. Vision in the remaining eye was reduced to "counting fingers." The artificial eye was removed, and under appropriate treatment useful vision was restored, with some permanent impairment of accommodation.—*American Journal of Opthalmology.*

Microscopy.

NOBERT'S RULING MACHINE.—We clip the following from the *English Mechanic and World of Science.* It is from the Proceedings of the Royal Microscopical Society, of March 11. We have explained in previous issues of the MEDICAL NEWS the character of Nobert's fine rulings—ruling lines on glass so fine that 112,000 were contained in a linear inch. The method of execution was a secret with him during his life. Only the finest and most powerful lenses would exhibit his finest rulings to the eye. Although the description is somewhat lengthy, we are sure our readers will be pleased with our presenting it to them. We will be the first in this country publishing it. It has not yet been published in the *Journal of the Royal Microscopical Society,* which is a quarterly.

Mr. J. Mayall, Jr., described the original ruling machine of the late Herr F. A. Nobert (now the property of Mr. Crisp), which was exhibited to the meeting. He said he should not enter minutely into the details of the construction, as they could hardly be understood without a close inspection of the machine, many portions of which were too delicate and complex to be handed round to the meeting. The foundation of the machine was a dividing engine calculated to produce parallel divisions far finer than could be marked by any ruling point yet discovered. The division-plate had 20 circles of "dots," and these were supplemented by extremely fine graduations on two bands of silver imbedded near the edge, which were viewed by means of two compound microscopes, each provided with eyepiece screw-micrometers of special construction. The movement of rotation was effected by a fine tangent screw acting upon a worm on the vertical edge of the division-plate. The tangent screw was controlled by a large milled head, about four inches in diameter, and a graduated drum showing the amount of motion. The method employed by Herr Nobert for obtaining the minute divisions of his test-plates (ranging from $\frac{1}{1000}$th to $\frac{1}{20000}$th of a Paris line) was to convert the radius of the division-plate into a lever to move the glass plate on which the rulings were made at right angles to the motion of the ruling point. For this purpose he attached to the centre of the rotating division-plate a bent arm, on which slided a bar of silver, having at one end a finely-polished steel point which could be adjusted by a scale of venier so as to project more or less beyond the center of the division-plate or axis of rotation. The radius of the division-plate thus became the long arm of the lever, whilst the radius of the projection of the polished steel point beyond the axis of rotation formed the short arm, the center of the division-plate being the fulcrum. The motion of the short arm of the lever was communicated by contact with an agate plate to a polished steel cylinder adjusted to slide at right angles to the movemeut of the ruling point in V-shaped bearings of agate. The steel cylinder carried a circular metal table, on which the glass plate to be ruled was fixed by wax and clamps. The motion of the lever arms was, of course, in arc, and hence the divisions would not be strictly equidistant, unless compensation were made for the difference in length of the arc and its sine; but since the actual space included between the first and last lines of

Herr Nobert's test-plates hardly exceeded 1-50th inch, this difference would be inappreciable. The arrangement for carrying the diamond point was, he believed, wholly designed by Herr Nobert, and was a most ingenious combination of mechanism—not "ingenious" in the sense often alluded to by Mr. Crisp, which generally meant both complicated and useless, but in the sense of combining inventiveness and efficiency. The questions to be solved were (1) To provide means to adjust a diamond edge to any angle (within required limits); (2) to balance it truly, so that the weight-pressure for ruling might be perfectly controlled; (3) to raise and lower it strictly in one plane—that is to say, mechanically free from lateral play, so that the consecutive divisions of the ruling depended solely on the motion imparted to the glass plate by the dividing engine; (4) to cause the diamond to oscillate freely in one plane; (5) to control the length of the lines to be moved; (6) to connect the whole with mechanism to insure an even rate of speed in the ruling movement of the diamond. These matters had been worked out by Herr Nobert with extraordinary perseverance, as evidenced by the elaboration of the adjustments. From the point of view of so accomplished a mechanician as Dr. Hugo Schröder—to whom he (Mr. Mayall) must publicly express his obligations for explanations connected with the machine—the design of this portion of the machine might be much simplified without loss of accuracy or delicacy of action. In particular Dr. Schröder noted that the whole of the movements might be made to act automatically, whereas Herr Nobert went through the process of adjusting the dividing engine and winding up the train of wheels for each line ruled on his test-plates—a labor demanding prodigious patience. It should be observed, however, that Herr Nobert had always to work with very limited means. The success of his efforts must be estimated by those who were familiar with his ruled plates, and who had compared them with others. For the production of diffraction gratings and ordinary micrometers, where the equidistance of the lines was an essential factor, and where the breadth of space covered by the lines was so large that the lever motion in arc of the dividing engine would have introduced errors in the evenness of the division, Herr Nobert removed the bent arm from the center of the division-plate and substituted a vertical cylinder, on which he coiled an extremely thin flat steel spring having a hook at the free end; this hook was attached to a stud beneath a straight cylinder of polished steel, which carried the glass plate to be ruled under the diamond, and which took the place of the more delicate arrangement for the test-plates. The rotation of the division-plate caused the vertical cylinder in the center to rotate, coiling the steel spring, and thus, after the manner of a windlass, hauled along the diffraction-plate carrier at right angles to the ruling motion of the diamond. Presumably Herr Nobert used the stud and "dots" of the division-plate to divide the diffraction-plates and micrometers, for the verification of 12,000 consecutive divisions (of which some of his diffraction gratings consisted) by means of the microscope, would have been too much for even his patience. Mr. Mayall then referred briefly to the preparation of the glass plates for the rulings, which he said were of specially "mild" composition. He believed that Herr Nobert's earlier rulings were upon artificially-prepared surfaces on the slips themselves, and that later on (about 1860) he came to the conclusion that the melted surface of cover-glass was better for his test-plates. Subsequently Dr. Schröder instructed him in a method of polishing the "mild" glass, which induced him to revert to artificial surfaces again. The later test-plates were probably all ruled on the prepared "mild" glass, thinned down to suit high-power objectives. Mr. Mayall said he must defer his remarks on the diamond points till the next meeting; he mentioned that the ten diamonds that accompanied the machine presented varieties of preparation. Some had two worked surfaces brought to a knife edge; others one worked surface and one surface of fracture meeting in a knife edge; others had two surfaces of fracture meeting in a knife edge. By reference to Herr Nobert's memorandum book, Mr. Mayall said he hoped to be able to explain the character of the diamonds which were noted upon as being successful. In conclusion, Mr. Mayall said it was abundantly proved by Herr Nobert's work that the perfection of the mechanical part of the dividing-engine was not the only difficulty which he had understood and conquered. There was a still greater difficulty which he had understood, and which he had met with a success that gave him pre-eminence in this department of microphysics, and that was the preparation of the diamond ruling points.

The President expressed the thanks of the meeting to Mr. Mayall for his description of a machine which exhibited such an immense amount of commendable ingenuity in its construction. He thought it must be a source of gratification to the society to know that, as the machine now belonged to Mr. Crisp, they might hope at some future time to hear more about it, and to see something of its performance.

Gleanings.

GERMICIDES.—From experiments of Dr. Miquel, the following solutions will prevent fermentation in sterilized beef broth: Biniodide of mercury 1 to 40,000, iodide of silver 1 to 32,000, peroxide of hydrogen 1 to 19,000, bi-chloride of mercury 1 to 14, 000, chlorine 1 to 3,880, iodine 1 to 3,880, bromine 1 to 1,610, iodoform 1 to 1,610, carbolic acid 1 to 400, permanganate of potassium 1 to 300, boric acid 1 to 143. According to Wynter Blyth, of Edinburgh, drugs fail to affect the germs of certain diseases, as anthrax spores. Dr. Sternberg affirms that a 10 per cent. sol. of carbolic acid will not kill bacteria in putrid fluids, and is useless when dissolved in alcohol or oil. Sulphate of copper destroys the germs of septicæmic blood 1 to 400. Sulphate of iron has no effect on any germs. Four per cent. of tincture of chloride of iron fails to kill bacteria. Hyposulphite of sodium or sulphite of sodium destroys only the yeast plant.—*Medical Record*.

MORPHINISM AND PREGNANCY.—Dr. Feré relates the case of a young woman addicted to the use of morphine in rather moderate quantities (about 3½ grains a day), who, in the sixth month of pregnancy, endeavored to break off the habit. But any sudden diminution in the daily amount taken caused such severe uterine colic that the progress toward recovery was very slow. At the time of delivery she was taking about two grains per diem, and no attempt to reduce this quantity was made for a week. It was then sought to lengthen the intervals between the hypodermic injections, but the uterine pains returned and the lochial discharge ceased and did not reappear until the injections were resumed. At the end of the month the daily quantity of morphine had been reduced to a little more than one grain, and it was then withheld entirely. The patient suffered severely from uterine and intestinal colic, and was unable to sleep the first night, but the following day all these unpleasant symptoms ceased, and she was definitely cured. The effect of the sudden abstinence upon the child, when birth removed him from the influence of the drug, was evident. He was a well-developed boy, though emaciated. He suffered from convulsive twitchings with continuous agitations and crying for sixty hours, during which time he did not sleep a minute. After that he recovered, slept well, and acted naturally. This fact would seem to indicate that, whatever may be said to the contrary, the fœtus is influenced by morphine even in relatively small doses, and that it may suffer from the sudden abstinence enforced by birth. This last consideration indicates the necessity of a gradual withdrawal of the drug in the case of opium-eaters who become pregnant.—*Il Movimento—Med. Record.*

GERMICIDE TREATMENT OF LUPUS BY MERCURIALS.—Dr. Ch. Éloy reports a case of lupus in which the patient refusing treatment by the ordinary method, resort was made to mercurial treatment.

The lesions of the disease in the case under consideration were superficial and easy of access, and therefore epidermic applications only were made. A plaster analogous to that suggested by Unna was ordered, of which the following is the formula:

℞. Hydrarg. chlor. corros., . . gr. 15
Potass. sulpho-ichthyolatis, . . ʒiiss.—M.

The border of the plaster extended beyond the marginal zone of the ulceration about one-half inch, and it was directed to be renewed every twenty-four hours until suppuration was well established, and at each renewal the diseased surface was washed with a solution of corrosive sublimate of 1 to 300. Within twenty-four hours there was evident an erythematous swelling about the borders of the diseased tissue; the whole tumor had assumed a dark and escharotic appearance, and the patient complained of a very severe smarting sensation. A carbolized poultice was now applied, with the result that the eschar sloughed and left a bare suppurating surface.

The following days—morning and evening—the ulcerating surface was covered with compresses of gauze soaked in corrosive solution of the strength of 1 to 1000, overlaid with wadding and held in position by bandages. The swelling which followed the application of the ointment soon disappeared, and a slight desquamation of the epiderm succeeded. Moderate suppuration continued, gradually decreasing, however, and in eighteen days the entire ulcer cicatrized. As an adjuvant to the local treatment, Fowler's solution was prescribed internally, as recommended by Doutrelepont.

Under the mercurial treatment there were no symptoms of mercurial poisoning, no tendency even to salivation being noticed. Slight pain and congestion of the parts adjoining the diseased surface were the only ill-effects observed during the application of the ointment. Examination of the cicatrix showed it to be healthy, with no signs of a return of the disease. The general condition of the patient is much improved, and she still continues the use of arsenic tonics and cod-liver oil. At the end of nine months there has been no return of the disease, and the method of treatment deserves further attention.

The method of treatment by cauterization requires apparatus and skill on the part of the operator, while the method by scarification is still more inconvenient, and chemical cauterization, according to Unna, is a last resort, and not a method of treatment properly so-called. If, therefore, more extended trial confirm the result here attained, and show the use of the remedy to be free from danger, the germicide treatment of lupus will put into the hands of the physician, not a specialist, a powerful, and at the same time a convenient, means of curing a disease hitherto most rebellious to treatment.—*L'Union Medicale, March* 24, 1885.

Presence of Sugar in the Liquid of Ascites, in Cirrhotic Liver, by Arnozan (*Journal de Med. de Bordeaux*).—A relative or complete obliteration of the portal plexus, in cirrhosis of the liver, prevents the accumulation in this glycogenic gland, of the glucose absorbed on the surface of the intestines, in which case the glucose must pass into the general circulation, through venous anastamosis. A patient affected with cirrhosed liver, who has ingested a quantity of saccharine material, must necessarily become glycosuric.

It is presumed, that under like pathological conditions, the liquid in ascites would contain glucose. Indeed, the serum in the blood of the vena porta should be rich in glucose, conditional that alimentation has been, in whole or part, composed of feculent or saccharine substances. This hypothesis was fully confirmed by the following case. A patient affected with cirrhosis of the liver and non-glycosuria, has been tapped twice; the presence of sugar was demonstrated in the liquid abstracted.

The researches of Ottomar Rosenbach have proven, that, contrary to the generally adopted opinion, sugar is *always* found in serous effusions; in quantities of $\frac{1}{10}$, $\frac{1}{8}$, even $\frac{1}{5}$. He generally analyzed the serum in subcutaneous dropsies, in ascites and in hydrothorax. He demonstrated it by the reactive of Trommer, the liquor of Fehling. The reaction should be essayed without delay, for the sugar disappears rapidly by fermentation; which can, however, be prevented by the addition of an antiferment. In all these cases no sugar was found in the urine; lymph-globules have also been found charged with sugar.

Caffeine as a Heart Tonic.—When caffeine is given in doses of from 10 to 30 grains in twenty-four hours, it produces an effect similar and in many conditions superior to digitalis. Prof. F. Riegel has lately formulated the results of his experiments, and attributes to the drug the powers of regulating the heart of increasing arterial blood pressure, and the force of the heart, of slowing the pulse (although according to Mendelsohn, of Berlin, it does not reduce the pulse so effectively as digitalis), and of increasing the excretion of urine (even when the kidneys are badly damaged.—*Dujardin-Beaumetz*). Its action is more rapid than digitalis, while it is also free from the latter's so-called cumulative effects. It is particularly well adapted to the last stages of cardiac disease, and even in cases where all other cardiac tonics have been exhausted, signal success will attend the administration of caffeine. Besides its favorable results in valvular disease, myocarditis, fatty heart and Gubler's "cardioplegia," it will be found invaluable in nephritis, pleurisy with effusion, and in the pneumonia of the aged. To obtain an effectual solution of the drug it should be combined with salicylate of soda or benzoate of soda to form a double salt. As ℞.—Caffeine, sodii benzoatis aa grains 48, aquæ ℥ 4. One tablespoon contains 8 grains of the combination, 61 per cent. of which, equal to 4 8-10 grains, is caffeine. It is better given in small and frequently repeated doses, and never in conjunction with narcoctics.—*Therapeutic Gazette.*

Santonin.—Dr. Lewin advises to give santonin only in solution, and shows that in that form it reaches the small intestines more surely, is not absorbed too quickly, and is more destructive to the round worm (ascaris lumbricoides) which inhabits the small intestines than when given in any other form. He mentions several prescriptions, of which we select the two following:

℞.	Santonini,	gr. iij.
	Ol. ricini,	f. ℥ ss.
	Ol. cinæ. eth.,	gtts. iv.

Sig. A teaspoonful two or three times daily, or, if elastic capsules can be taken.

℞.	Capsul gelatin. elast.,	
	Santonini,	gr. i.
	Ol. ricini,	f. ℥ i.
	Ol. cinæ. eth.,	gtt. i.
	Reple.,	No. iv.

Sig. One to be taken two or three times daily.

Santonin is also useful for the long thread-worm (trichocephalus dispar.) which resides in the cecum, and the thread-worm or seat-worm (oxyuris vermicularis) which inhabits the colon and rectum; it must there also be given in oily solution, but as an injection per rectum.—*Berlin Klin Woch.*

TREATMENT OF LIPOMA- FATTY WEN—WITH INJECTIONS OF ETHER, by Vidal (*Journal de Med. & Chir. practique*).—Vidal met with great success in his treatment of fatty tumor. It consists in injecting ether into the cavity of the tumor. It acts in various ways; it provokes a suppurative inflammation in the cyst; ether dissolves readily fatty substances, and penetrates easily every part of the tumor.

The injection is not painful, and is made with a hypodermic syringe, 4 to 10 drops, according to the size of the tumor, every 2–3 days until suppuration is induced, when it will empty itself through the orifices made by the syringe. As soon as the injection is made, the tumor enlarges somewhat, but is not painful unless too large a quantity of ether is injected at once. The interior of the cyst should be lacerated and broken up by lateral motions of the syringe. A cure can be effected in two or three weeks. The skin retracts and leaves no cicatrix. An antiseptic dressing should be used during the suppurative stage.

THE PRESENCE OF SUGAR IN THE URINE OF HEALTHY INDIVIDUALS AFTER THE INGESTION OF CARBOHYDRATES.—Dr. Worm Müller writes in the *Nordiskt Medicinskt Arkiv.*, Vol. 16, 1884, giving an account of some experiments made by him to determine the influence of the ingestion of carbohydrates upon the presence of sugar in the urine in healthy individuals. With this object he gave to some healthy students, from five to fifteen minutes before breakfast, cooked starch, cane-sugar, milk-sugar, grape-sugar, and honey. The ingestion of starch was never followed by any trace of sugar in the urine. After that of cane-sugar there was found cane-sugar, but neither grape-sugar nor levulose. Sugar-of-milk and grape-sugar gave only the same substances respectively. In one experiment, after three ounces of grape-sugar had been taken, none at all was found in the urine. In the trials made with honey, grape-sugar was found, but not a trace of levulose. There is thus reason for doubting that levulose is excreted by the kidneys of healthy persons after its ingestion. The author observes that these results possess some practical importance as regards the theory of glycosuria and diabetes.

A Test for Sugar in the Urine.—Dr. W. S. Groom, of Britt, Ia., writes: "I send you a test for sugar which I have never seen published, and which, for simplicity and accuracy, is not to be surpassed by Trommer's, Fehling's, or even by the fermentation test. A small portion of the suspected fluid is placed on a piece of bright tin, which is held over a spirit-lamp until the urine is evaporated. If sugar be present, the last portion of the urine will give the characteristic appearance and odor of burnt molasses. The ease with which this test can be made will commend it to the busy practitioner at the bedside."

Ice Water in Typhoid Fever.—In a clinical lecture recently delivered at the Pennsylvania Hospital, Professor Da Costa brought before the class a case of typhoid fever in which the antipyretic effects of ice-water application to the chest and abdomen had been shown to a marked degree.

The temperature in the case had been persistently high, reaching 104.5°, and at one time 104.8, and rarely falling below 103°, even in the morning remission. Large doses of quinine were administered, but without their usual effect. The temperature still remained high. The propriety of immersing the patient in a cold bath was then discussed, but abandoned owing to his extreme weakness, and the distance from his bed to the bath-room.

Professor Da Costa then ordered his chest and abdomen to be kept covered with cloths wrung out in ice-water. This was done with the most gratifying results. The temperature fell from 104° to 102, and then to 101½. The other symptoms also began to abate.

STRETCHING THE SPINAL CORD.—Professor Hegar has recently read a paper at Freiburg in which he advocates stretching the spinal cord. Our readers will be glad to hear that this operation does not consist in opening the spinal canal and directly stretching the spinal medulla. But Dr. Hegar has found that when the spine is very much bent the cord is actually lengthened. His mode of procedure is to place the patient on his back, and then with the knees kept perfectly straight, the lower limbs are bent up toward the chin as far as sossible. In this way the great sciatic nerves are put on the stretch, and this, as well as the overbending of the spine, stretches the lower end of the cord. The cases for which Dr. Hegar recommends this treatment, are those of women who suffer from pelvic pain, and of nervous phenomena referable to the branches springing from the lumbar enlargement of the cord. Already the treatment has been employed in a few instances, and, it is stated, with success. —*London Lancet.*

EXCITABILITY OF THE OCCIPITAL AND SPHENOIDAL REGION OF THE BRAIN SURFACE, by Brown Sequard (*Soc. de Biologie*). —Brown Sequard communicated many facts tending to demonstrate the existence of motor and inhibitory excitability of the occipital and sphenoidal region of the brain surface. These facts, and many others, show clearly, that the zone, hitherto considered non-motor and not excitable, is, on the contrary, much more so than the usual motor-zone. Just as the latter, it can, under certain circumstances, produce movements in the members of the opposite side, and it can do more, it can produce inhibition.

IMPERVIOUS CORKS.—Corks may be made impervious by soaking them—best quality—for several hours in a solution of one-half ounce of glue or gelatine in a mixture of three-fourths ounce of glycerine and one pint of water, heated to a temperature of about 50° C. Such prepared corks may be rendered nearly proof against acids and other chemicals if they are dipped, after thorough drying, for ten or fifteen minutes into a melted mixture of four parts of paraffine and one part of vaseline.

Book Notices.

MICRO-CHEMISTRY OF POISONS: Including Their Physiological, Pathological and Legal Relations; with an Appendix on the Detection and Microscopic Discrimination of Blood: Adapted to the use of the Medical Jurist, Physician and General Chemist. By Theodore G. Wormley, M. D., Ph. D., LL. D., Professor of Chemistry and Toxicology in the Medical Department of the University of Pennsylvania. With 96 Illustrations upon Steel. Second edition. 8vo. Pp. 784. Philadelphia: J. B. Lippincott & Co. Cincinnati: R. Clarke & Co. Price, $7.50.

This is a work that, however highly a reviewer may laud it, he will not likely feel afterward that he has probably ascribed to it more merit than it possesses. We know that in noticing books there is a disposition to be complimentary, which sometimes results in being too profuse with praises—in giving credit to new publications of possessing much greater value than they have.

A work like the one before us embodies the learning and research of a lifetime. Every page bears testimony of hard, patient work on the part of the author, in chemical investigations of his own, and close study of the labor of others in the same field; of extensive knowledge and scientific skill; of a well-disciplined mind, trained to make correct analysis and form logical conclusions. It is only occasionally that there is published a work like this one of Prof. Wormley's, which, although abreast of its time in exhibiting the discoveries of others in the department of science to which it belongs, yet in no respect is a compilation. The author, by confirming by his own researches whatever others have established, and then employing the knowledge for further elucidations, seems to make everything his own.

Not just chemists and such physicians who take especial interest in medical jurisprudence should be in possession of this work, but every intelligent physician. It is a vast treasury of knowledge of great interest to every intelligent man.

The work has ninety-six illustrations upon steel, most beautifully and accurately executed, which, with physicians who have an ordinary microscope, alone are worth many times the price of the book. But, independent of these cuts, the work is of the greatest value to every medical man for the very great information contained in it in regard to the chemistry of poisons, their action, signs and symptoms following their administration, mode of detection, etc.

As an evidence of how greatly accomplished is the wife of Prof. Wormley, we will mention the fact that the remarkably beautiful steel engravings contained in the book, exhibiting the microscopic character of various chemical agents, mineral and vegetable, were drawn upon steel by his wife. Some of the objects shown are magnified over a thousand diameters.

A GUIDE TO THE DISEASES OF CHILDREN. By James Frederick Goodhart, M.D., F.R.C.T., Assistant Physician to Guy's Hospital, and Lecturer on Pathology in its Medical School, etc. Revised and Edited by Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. With Formulæ. 12mo. Pp. 738. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $3.00.

There are comparatively but few works upon diseases of children, although such affections form a large fraction of the diseases which a physician is called upon to treat. The work of Meigs and Pepper is well known in this country, and is held in high estimation; but we think the literature on these ailments can be advantageously increased. The works upon the general practice of medicine are very numerous and are being increased almost every day; but it is seldom that a new work on children's diseases is issued. This is somewhat remarkable, for, besides the ailments that are peculiar to childhood, those that are common to it and adult life require a greatly modified treatment in the one period from what is necessary in the other.

The *Medical Times*, of London, has quite a long notice of Dr. Goodhart's book in its issue of March 7. It says of it: "Throughout the book we are struck with evidence that Dr. Goodhart has seen what he is writing about; that he has made his own all that he has touched; that he has thought out the moot questions he discusses; that he does not slur over difficulties and so encourage false practice by being dogmatic where truth gives him no warranty, and that he preserves throughout a clinical 'chiaroscuro' which will be as useful to the readers for whom it is designed as it is all too rare in contemporary writings." . . . . . "It would be impossible in the space of one article to illustrate all the valuable characteristics of this book."

We feel sure that an examination of the work will confirm in the mind of any one the correctness of the statements of the reviewer in the *Medical Times* in regard to this work. That it will contribute much toward a better understanding of the diseases of children, we have no doubt. In the language of the reviewer from whom we have quoted, we will say that it is full of the best and most useful material, and that even when occasionally we may not quite agree with the author, his words are few that are not weighty.

The size and style of the mechanical execution of the book make it convenient for handling by medical students in attendance upon lectures.

KIRK'S HAND-BOOK OF PHYSIOLOGY. By W. Morrant Baker, F. R. C. S., Surgeon to St. Bartholomew's Hospital, Lecturer on Physiology to St. Bartholomew's Hospital, etc., and Vincent Harris, M. D., London, Demonstrator of Physiology to St. Bartholomew's Hospital. Eleventh Edition, with nearly 500 Illustrations. Two volumes of about 400 pages each. 8vo. New York: Wm. Wood & Co. Cincinnati: R. Clarke & Co. Price, $1.25 per volume.

These two volumes form the February and March numbers of *Wood's Library of Standard Medical Authors*. The work, as issued by other publishers in a single volume, sells for not less than five or six dollars. It will be noticed that the subscribers to *Wood's Library*—twelve volumes in a year for fifteen dollars—get it for one-half the usual price, or less.

We do not know of any text-book that has passed through so many editions as the work before us. Its popularity has been sustained right along, without the slightest diminution; and justly, for as a text-book for students, we regard it as much superior to any other work upon physiology. Its descriptions are plain and easily understood, and the student consequently readily the teachings. Controversial discussions are omitted, as not belonging to a work the object of which is alone to give instruction to those who are learners.

With such a work put into his hands an intelligent student will rapidly obtain a very thorough knowledge of everything pertaining to human physiology. He will have no trouble in mastering the complexities of the structures of tissues, in comprehending the mysteries of secretion, and in understanding the obscurities which beset nutrition, growth, generation, etc.

Interestingly written as the work is, it would well repay the physician of a score or more years' practice to give it a perusal and post himself on what is known of physiology at the present time.

LECTURES ON DISEASES OF THE NERVOUS SYSTEM, ESPECIALLY IN WOMEN. By S. Weir Mitchell, M. D., Member of the National Academy of Sciences, Physician to the Orthopedic Hospital and Infirmary for Diseases of the Nervous System, etc. Second Edition, Revised and Enlarged. With five plates. 8vo. Pp. 287. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price, $1.75.

Treating, as this work does, so important a class of diseases by so eminent and instructive a writer as Dr. S. Weir Mitchell, and considering its very low price, one would suppose that it would find a place in the library of every medical man. There are no diseases more prevalent than nervous affections, and none that are more frequently brought to the attention of the physician, and for which his aid is more importunately sought. They are a class of diseases that oftentimes, more than any other affections, tax not only all of a physician's knowledge and skill as a practitioner of medicine, but all of his address, shrewdness and acquaintance with human nature; for many of them are not to be treated by drugs alone, but by obtaining the confidence of the patient and bringing to bear moral means. How necessary is it, then, that a physician should fully understand the nature of such affections, and be able to recognize any case of them so soon as it is brought to his attention. To mistake a hysterical motor ataxia for a motor ataxia that is the result of certain pathological changes that have taken place in the spinal cord, would be disgraceful to the physician and injurious to the patient, but such mistakes have not unfrequently happened, and are liable to occur if the medical adviser is not fully acquainted with all the phenomena which belong to the various forms of nervous diseases.

The work contains fifteen lectures by the author. There are treated, among other derangements of the nervous system, Paralysis of Hysteria, Mimicry of Disease, Unusual Forms of Spasmodic Affections in Women, Tumor, Chronic Spasms, Chorea of Childhood, Habit Chorea, Disorders of Sleep in Nervous Persons, Vaso-Motor and Respiratory Disorders, Hysterical Aphonia, Hysterical Joints, Gastro-Intestinal Disorders of Hysteria, etc.

After the first edition of the work was exhausted, it was out of print for a long time. In this, the second edition, considerable alterations have been made. Some new lectures have been added, explaining the difficulties of diagnosis in hysterical diseases of the joints, on the relations of hysteria to organic disease of the spine, etc.

THE PHYSICIAN HIMSELF AND WHAT HE SHOULD ADD TO HIS SCIENTIFIC ACQUIREMENTS IN ORDER TO SECURE SUCCESS. By D. W. Cathell, M.D., Late Professor of Pathology in the College of Physicians and Surgeons. Fourth Edition. Enlarged by the Addition of nearly Three Hundred New Suggestions. 8vo. Pp. 284. Baltimore: Cushing & Bailey. Price, $2.00.

This work, in a very short time, has reached four editions, showing that it has met with very considerable favor from the profession. We have noticed some of the previous editions.

The work is devoted to the consideration of personal questions as respects the physician in medical practice. It is filled with just such information as every competitor for patronage in the practice of medicine needs. Undoubtedly not a few very competent physicians fail in obtaining practice in consequence of possessing faults, by reason of which they fail to obtain the confidence and good will of the community in which they are striving to obtain business —faults of which they are entirely unconscious themselves, and which stand in the way of their success. Dr. Cathell, in his work, proposes to set forth to such as are qualified to practice medicine, so far as possessing a due amount of medical lore, just what is needed in them to make a favorable impression, win the confidence of persons, get their respect and be successful in obtaining practice. The book is full of most valuable suggestions. There are multitudes of physicians in this country who, if they would attentively read this book and act upon its advice, they would realize thousands of dollars as the result. It is of a high moral tone, giving no encouragement to clap-trap and quackish methods to get business. As to *personnel*, however, it advises a doctor to have a clean face and hands, a clean shirt, and to wear whole clothes; and not to get it into his head that people admire filthiness in a physician and regard it as an evidence of ability and learning. If that were so, a hog would be held in the highest esteem of all the lower animals, and not be looked upon as the stupidest of brutes.

THE LAW AND MEDICAL MEN. By R. Vashon Rogers, Jr., of Osgood Hall, Barrister-at-Law. 8vo. Pp. 214. Toronto, Canada, and Edinburgh, Scotland: Carswell & Co., Law-Book Publishers.

Although this little work is by an English barrister, yet, as it treats of legal medicine on the principles of common law, which are the same everywhere, it is as appropriate for the use of physicians of this country as for those of England.

It will be found a very useful little work, containing, notwithstanding its small size, a large amount of information of which every physician should be in possession. It is not its object to make every doctor his own lawyer, but to inform the medical man of his standing as regards the common law. There is a chapter upon Fees, one as regards Who Should Pay the Doctor? Then follow chapters on Who May Practice; Negligence and Malpractice; Criminal Malpractice; Professional Evidence; Medical Experts; Defamation; Relations with Patients; Dissection and Resurrection; Partners, Good-will, and Assistants; etc.

The author gives a short sketch of the history of medicine in England. He states that it was not until the twelfth century that medicine began to be studied in England as a science. In 1421, under Henry V., an Act was passed providing that "No one shall use the mysterie of fysyk, unless he had studied it in some university, and was a bachelor of the science." It was made the duty of the sheriff to inquire whether any one was practicing in his county contrary to this regulation; and if any one so practices fysyk, he should forfeit £40, and be imprisoned. From the preamble of an Act passed in 1511, it is stated that physic and surgery were then practiced by "ignorant persons, who could tell no letters in the book, and by common artificers, smiths, weavers, and women, who took upon themselves great cures, partly using sorcery and witchcraft, and partly applying very noxious medicines to the disease."

Nosographic Revision of the Progressive Muscular Atrophies.

Clinical Lecture by PROFESSOR CHARCOT, delivered at the Hospital de la Salpetriere.

GENTLEMEN:—

By chance we find, at this time, assembled in our service a most interesting collection of cases representing the very diverse aspects under which this malady may present itself to the observer—*muscular atrophy of progressive form.* I propose to utilize these cases, and to enter, in their discussion, into certain developments relating to this question of atrophy, or better, of *progressive muscular atrophies.*

In the last few years this question has entered a really critical phase. The nosographic history of progressive amyotrophies demands a revision by the aid of new documents; even a reconstruction, in part, upon new foundations. To-day I can only offer you an essay—an outline of this tentative at reconstruction, reserving for another occasion—which I hope will be soon—to present you a more detailed and better defined plan.

In the domain of progressive amyotrophies things are more complex than we would have at first imagined. Recall, for a moment, my teachings for ten years. The clinical denomination of progressive muscular atrophy comprehends—let us say it now—different affections, brought together by external, superficial resemblances, but which all have this in common, that they are of spinal origin; in other words, that they depend upon a lesion of the spinal cord, and more particularly of the anterior horns of the gray substance. Nevertheless, we may add here, we can establish in this group at least two fundamental divisions:—

1st. The *denteropathic* spinal amyotrophies, in which the lesion of the gray substance is secondary.

2d. The *protopathic* spinal amyotrophies, in which the lesion of the gray substance is the unique, at least primitive, fundamental fact.

In the first group of denteropathic amyotrophies, we established the following distinction: At first come all those cases in which the lesion of the gray substance is an accessory fact, accidental, as it were; these are the diffuse myelites, the sclerose en plagues, the tumors of the spinal cord, locomotor ataxia, etc. We can eliminate from our own study that class of spinal amyotrophies, which it is generally easy to connect with the maladies upon which they are dependent. In the second place, we have the cases in which the lesion of the white fasciculi is primitive, but always necessarily followed by a lesion of the gray substance. Here it is the pyramidal fasciculi which are first attacked, and secondly, the anterior horns, whose participation is a necessary fact. When we have the malady constituted in its entirety, it presents the ordinary aspect of progressive muscular atrophy, to which has been superadded a spasmodic element, which suffices to distinguish it. This group is nosologically distinct; there is nothing to be added and nothing to be taken away.

As to the other grand division of spinal amyotrophies, we have proposed to designate it clinically *progressive muscular atrophy of the type Duchenne-Aran.* The lesion of gray motor nuclei, spinal or medullary, is the unique, at least primitive, fact. If there is any participation on the part of the white fibres, it is only secondary and accessory. This is the class that can be characterized anatomically by the designation *protopathic spinal amyotrophy*, or better still, *chronic anterior poliomyelitis*. Very well. The constitution of this second class is less homogeneous, it must be acknowledged, than the first. It is this one which is under discussion to-day; this one which it is attempted to shatter to its very foundations; it is this one against which the blows of criticism—often just—are directed. In this category a reconstruction is necessary, and a legitimate dismemberment must be made.

It is not that the tentatives hitherto made compromise the very existence of the nosographic type Duchenne-Aran. There exists, in reality, a species of progressive muscular atrophy characterized anatomically by an isolated lesion of the anterior horns of the gray substance of the spinal cord, and clinically, by amyotrophy. It is certain that we encounter cases in which the debut, posterior to the twentieth year, was made in the superior members; in the hands, more particularly, in the thenar and hypothenar eminences, the alterations gaining progressively the root of the member. We meet in these cases fibrillary shocks and the reaction of degeneration in some of the atrophied muscles. They are distinguished clinically from lateral amyotrophic sclerosis in this, that the participation of the medulla, although real, is rarer than in this latter affection, and especially in this, that there is complete absence of the spasmodic element, and later on, of contracture. Formerly this category of amyotrophies was very large, but the number of cases constituting it seems to become more and more rare, since, under the influence of new and more attentive studies, they are separated into a certain number of distinct forms, as I did with lateral amyotrophic sclerosis. It results therefrom that its domain, formerly very extended, becomes more and more limited, in the same ratio as the heterogeneous elements, which have been annexed thereto, are extracted therefrom.

(*To be continued.*)

Editorial.

SENECA'S COMPARISON OF THE PRESENT WITH THE PAST.—We frequently hear persons speaking of the simplicity of the habits of men and women that formerly prevailed—that existed when they were young; and they compare unfavorably the present luxurious mode of living with the simple style of the past. It is said that history repeats itself, which, if it is not true generally, is certainly true as regards the disposition to disparage the present ways and manners, and commend those of the past. On looking into the works of a past age, it will be found that the writers of the time bemoan the degeneracy of the customs that are then prevailing, and compare them unfavorably with those of their predecessors, precisely as writers do now. On looking through a volume recently, of the writings of L. Annæus Seneca, a Latin philosophical writer of the first century of the Christian Era, we found the following paragraph in one of his letters—the ninety-fifth—which, as we have thought would be interesting to our readers, we have translated. It will be perceived that nearly two thousand years ago it was not unusual to take a melancholy view of the times present as compared with those of the fathers, or "when we were young." It will be noticed that we have not taken time to *elegantly* adapt the Latin idiomatic expressions with those of the English.

"Medicine," says Seneca, "consisted formerly in the knowledge of a few herbs by which blood escaping could be checked, and wounds gradually healed. Afterward there was added to it a complicated variety. Nor is it wonderful that, at that time, there was not much for it to do; the bodies of men being strong and hale, their food simple, and not injured for pleasure by means of the culinary art. Afterward food began to be sought, not for the purpose of taking away hunger, but to excite it, and a thousand condiments were invented to stimulate the appetite. What were aliments to those needing them, were burdens to those overfilled—the stomach forced to receive more than it was able. . . . . . What shall be stated in regard to the innumerable diseases, the punishment of luxury? Those who are free from them, are those who have not yielded themselves to its delights, who control themselves, who administer to themselves. When men harden their bodies by work and real labor, and when fatigued by either running or hunting or plowing, and, becoming hungry, take at home easily-prepared and plain food, there is no need of great apothecary shops for physicians, large numbers of lancets and medicine boxes. Many courses of dishes have made many diseases and many doctors. See how many things, in order to pass through one gullet, luxury, which levies upon lands and seas, mixes together. See how many are the cooks, bakers and servants that run backward and forward in cooking and bringing in a supper. Ye good gods! how many persons does one belly keep moving!"

Surely, Seneca, in describing the manners and customs of his times, in lamenting the changes from the simple habits of the days gone by, uses the same language, or would, if we translated him more elegantly, that the moralists of the present day do in setting forth the degeneracy of this period from the wholesome ways of our fathers. It can be as correctly exclaimed nowadays, as during the times of Seneca, on looking in the dining-room of Delmonico, when an individual is giving a dinner to a number of his friends at an expense of $15,000, which, we have understood, is not an unusual expenditure under the circumstances, "Ye good gods! how many persons does the belly keep moving!"

We do not believe that we will be filling our space with matter uninteresting to our readers, if, while copying from Seneca, we should translate a few reflections of his upon drunkenness, taken from his eighty-third epistle: "It is disgraceful," says he, "for any one not to know the measure of his own stomach, and crowd into it more than it can well hold. How many things do drunken men do at which sober men blush? The mind, shackled by drunkenness is not in its own power.

"Drunkenness is nothing else than voluntary insanity and brief fury. From hence Alexander run through his dearest and most faithful friend, Clitus, during a feast. What other thing than drunkenness and love of Cleopatra destroyed M. Antony?—a great man, and a man of illustrious mind. Drunkenness made him adopt foreign customs and vices not Roman. It rendered him an enemy of his country and unequal to his personal enemies. It made him cruel, seeing that the heads of the chief men of the State were brought to him while supping; seeing that, while overcome with wine, he nevertheless thirsted for blood. Truly, cruelty follows upon drink.

"Drunkenness exposes and inflames every vice, removing the scruples to evil doings. When too great power of wine gets possession of the mind, whatever there is of evil shows itself. Then the wanton man grants to his passions without delay whatever they desire. Then the petulant restrains neither tongue nor hand. Proudness increases in the insolent, cruelty in the cruel, malignity in the envious. Every vice is loosened and shows itself. Add to these remarkable ignorance of one's state, uncertain language, staggering walk, dizziness of head, pains of the stomach as the result of the wine effervescing and distending the intestines. What glory follows upon taking much wine?"

Can any modern temperance lecturer make a better temperance speech than is embodied in these remarks of Seneca? In consequence of their length, and not wishing to take up too much space with them, we have omitted not a little, even leaving out some very strong hits. In his fifty-third letter, in alluding to drunkenness, he uses this expression: "*Ebrietas hilarem unius horæ insaniam longi temporis tædio sæpius pensat.*" Drunkenness too often compensates for a hilarious insanity of one hour by a feeling of disgust for a long time.

AGITATION OF HEART FOLLOWED BY APPARENT DEATH.—In our "Book Notices" of this month is noticed the little work of Dr. S. Weir Mitchell on Diseases of the Nervous System, Especially in Women. In it are recounted many curious cases of hysteria, which have come to the attention of the author. In his eleventh lecture, he treats of the vaso-motor and respiratory disorders in the nervous or hysterical, stating that from the heart to the capillaries we are liable to meet with conditions of disorder which are sometimes almost as lasting as if they owed their parentage to obvious and coarse structural lesions. "No matter," he says, "what be the form of general nervousness or the variety of hysterical illustration, the nervous supply of the heart or vessels, or both, almost never escapes from bearing some part of the mischief, and only too often, after everything else is well, and the patient is afoot and able to live as pleases her, she will be still reminded by something in connection with the blood-supply and its channels, that they are almost the last to regain the vigor and steadiness of health."

On page 189, in illustration of the vaso-motor disorders which sometimes occur in the hysterical condition, among others, he relates the following very curious and very remarkable case. "I saw, very many years ago, a handsome girl, of twenty, from Cincinnati, who had spells of apparent death, if I may use such a term. One of these I had the good fortune to see, and, indeed, to cause, for having been warned that to speak before her of certain things was apt to cause the trouble, I unluckily began to discuss with her the subject of a personal peculiarity from which I had been told she suffered. It seemed that certain odors would, in her, bring on hysterical attacks. You may recall a case here, last week, of an aphonic girl, in whom musk would do this. Now, at last, my patient had become very sensitive as to this as to other matters, and no one near her ventured to talk about odors; since then it seemed that the young lady was liable to suffer, as if from the odors themselves. Of late the hystero-epilepsy had given place to the 'death spells,' as her friends called them, and it was one of these I provoked. She said to me, 'I am going to have an attack; feel my pulse. In a few minutes I shall be dead.' Her pulse, which, just before, was about 100, was now racing, and quite countless; while the irregularity and violence of the heart's action seemed to me inconceivable. With the interest of an hysterical woman in her own performances, she said to me, 'Now watch it; you will be amazed.' This certainly was the case. Within a few minutes the pulse began to fall in number, and, as well as I can recall it, in some fifteen minutes was beating only forty. Then a beat would drop out here and there; the pulse meanwhile growing feebler, until at last I could neither feel it, nor yet hear the heart. In this state of seeming death, white, still, without breathing or perceptible circulation, this girl lay from two to four days. In this time there were spells of a few minutes, during which the heart beat again furiously and irregularly, as was also the case when she revived."

We regret that Dr. Mitchell says nothing more about the case from this point. We would have been pleased to learn what finally became of the young woman—whether he cured her or not, etc. Although he mentions that she came from Cincinnati, we never heard of her.

In further treating these cases, he says: "Of course, emotion of any kind is, in these women, able to disturb the heart rhythm and its number; and while such persons are subjected to the contacts of daily life, it is hard to relieve them. The oddities of hysterical cases are perceptible enough in the way in which the heart-action seems, at times, to disobey all apparent laws. I have seen such persons, whose hearts beat slower when they rose, and faster when they were lying down. I have now a patient, whose heart is quiet enough while she is supine, but to lie on either side causes palpitation and increased rapidity of pulse."

MEDICAL EXPERTS—Some parties seem to hold the testimony of medical experts in great contempt. The readers of the *Commercial-Gazette*, of Cincinnati, have often read the statements of an editorial contributor to that journal, who subscribes to his articles the initials S. R. R., that physicians know no more about insanity than persons do who have no knowledge of medicine, and that an individual's friends and acquaintances are better judges of his sanity than any number of physicians can possibly be. This writer seems to realize an immense amount of satisfaction in belittling physicians and holding them up to public ridicule. He himself must be a lawyer or preacher, for he has never anything to say about these differing among themselves. Although it is of the commonest occurrence for a District or Circuit Court to set aside a verdict of a Common Pleas Court, and for the Supreme Court, in turn, to overrule the judgment of the District Court, yet S. R. R. expends none of his ridicule upon gentlemen of the legal fraternity; he reserves it for those of the medical profession.

Some judges, like S. R. R., seem to hold doctors in great contempt. Forgetting how completely the profession of the law has failed in vindicating the rights of individuals, and having an eye only to the imperfections of others, they take delight in disparaging the medical profession. They inveigh against medical men because of their disagreements, totally unmindful of the fact of how little are the chances of one who appeals to the law for redress of grievances obtaining it. In the limits of the experience of almost every one of middle age, they are legion who have sought the law "to get their rights," but who, instead of "getting their rights," have been bankrupted; and not only so, but having lost their hard-earned means, have had to endure a verdict to the effect that the outrages which had been inflicted upon them, for which they were seeking redress, were proper and just. Through the disagreement of courts—one judge pronouncing the decisions of another to be erroneous—the delays of courts, the tricks of attorneys, with the most conscientious of whom the statute book forms their code of morals, it is an admitted fact that appealing to courts and lawyers for redress of wrongs results generally in having the wrongs increased. From whence comes the benefit to humanity of the much-lauded science of law?

An Iowa judge said not long ago, that "observation and experience teach that the evidence of experts is of the very lowest order, and of the most unsatisfactory kind." An Illinois judge is quoted as saying, "If there was any kind of testimony not only of no value, but even worse than that, it was, in his judgment, that of medical experts." And almost in the very same language, Mr. Justice Davis, of the Supreme Court of Maine, at one time said: "If there is any kind of testimony that is not only of no value, but even worse than that, it is, in my judgment, that of medical experts. They may be able to state the diagnosis of the disease more learnedly, but upon the question whether it had, at a given time, reached such a stage that the subject of it was incapable of making a contract, or irresponsible for his acts, the opinion of his neighbors, if men of good common sense, would be worth more than that of all the experts in the country." One Campbell, Circuit Judge, said to three medical witnesses who had recorded their opinions in favor of the insanity of a testator: "You may go home to your patients, and I wish you may be more usefully employed there than you have been here;" and to the jury he remarked, "We have had during the trial the evidence of three medical witnesses, and I think they might as well have stayed at home and attended to their patients." It is evident from this judge's talk to these witnesses that he would have been far more usefully employed as a "boss" over a gang of laborers than upon the judicial bench. It is evident that the three medical witnesses had not testified according to his wishes. He wanted the will of some poor lunatic sustained—some old idiot who, during the last days of his life, had been under undue influences.

But there are other judges, learned in the profession, whose expressions in regard to medical experts give forth an entirely different sound. We will quote from some of them for two purposes. First, to prove by the declarations of judges of the highest standing that the testimony of medical experts is valuable and should have great weight. Second, to show the disagreements of those of the legal profession—those holding the highest positions, judges, expressing upon the same subject opposite views. Says Shaw, C. J., "Such opinions (as to sanity, etc.), when they come from persons of experience, and in whose correctness and sobriety of judgment just confidence can be had, are of great weight, and deserve the respectful attention of the jury." A verdict of the Supreme Court of Texas declared: "The opinions of medical men are received with great respect and consideration, and properly so." The Supreme Court of Pennsylvania says: "It is well settled that the knowledge and experience of medical experts is of great value in questions of insanity." Equally strong are the utterances of the Court of Appeals of West Virginia, and the Supreme Court of North Carolina, and of other courts, but we will not consume space in copying them.

It seems to us to be the expression of a fool, of one who does not know about what he is talking, to say that the opinion of a medical expert in a case of insanity is of no value, or, is of no more value than that of other men generally, and is not of as great value as of those who have been neighbors and friends to the one alleged to be insane. To assert this is to assert that a person who makes it his business, his life pursuit, to study the anatomy, physiology and pathology of the brain, the organ of the mind, and of the nervous system; to attentively observe mental phenomena in health and disease, how affected by various circumstances and conditions, normal and abnormal; the influence exerted by different drugs, stimulants, narcotics, etc., knows no more after all than he who has never given any attention to such study! It used to be said that people at one time believed that the more ignorant a person was, the better qualified he was to treat diseases; and, consequently, a greasy Indian doctor, or a besotted negro dispenser of herbs and salves, would have a whole community running after him. We presume that S. R. R. yearns for the return of those good old times when wisdom in medicine was sought for among the ignorant; and yet he would not wish to trust his life on a railroad or steamboat if he knew that the engineer knew nothing about the construction of the engine of which he had charge, and was not acquainted with the nature of steam. He would not be willing even to trust an engineer who, although he had often witnessed the running of locomotives, yet knew nothing about the mechanism of an engine.

It is true that so-called medical experts oftentimes differ greatly in their inferences and opinions—taking sides with the advocates, and making out their testimony a studied argument in favor of the side for which they have been called. But on such trials the attorneys of the two sides have purposely sought for such physicians as would give the sort of evidence they wished, and made it their object to do so. In as large a profession as is the profession of medicine, it is very probable that plenty can be had who can be induced to take part on any side as witnesses. But if attorneys were moved only by a desire to seek for the truth, without first visiting them to ascertain their opinions, would call to the witness-stand able medical men who were known to have made insanity—to some extent at least—a study, there would not be such wide differences of views expressed, and such disgraceful partisanship exhibited, as is often the case. There is no doubt that about the same moral obliquity exists among physicians as among other men, and attorneys, of course, if they desire to have certain testimony testified to by an M. D., without caring whether the M. D. knows anything or not, they can find such a one. There is never any trouble experienced in getting a lawyer to do anything one may desire him to do. In Hamilton County efforts made to disbar a lawyer have failed, who was proven to have been guilty, as an attorney, of the most disgraceful conduct.

THE DISEASE OF GENERAL GRANT.—All of our readers have long ago heard that General Grant is suffering from a malignant affection of the throat—epithelial cancer. As this disease is regarded as almost necessarily fatal, it can not be long until this distinguished individual will be numbered among those who once lived, but are no longer living. The interest which is taken in his illness, reminds one of the times when President Garfield was suffering from the wound inflicted by an assassin.

Drs. Douglass and Shrady, of New York City, are the General's medical attendants; Dr. Barker and one or two other physicians seeing him frequently in consultation. A week ago, the symptoms were so alarming that it was thought the General might die at almost any time. There was at that time great difficulty in keeping the throat clear from the accumulation of thick adhesive mucus, and, at the same time, the vital powers had become very much enfeebled from disturbance of the nutritive functions and the absorption probably of poisonous matter into the blood. At the time of our writing, however, a very favorable change has taken place in the patient. His appetite has improved very much, he is able to eat more of solid food than heretofore, his general strength has much increased, the mental depression has given way to greater cheerfulness. Many persons begin to believe that a rapid recovery will ensue—that death has been postponed to some distant time in the future.

When poor Garfield had been shot, for some time death was expected daily, but after awhile he seemed to get better, and it was thought that he would eventually recover. After the indignation against Guiteau had somewhat cooled down, the newspapers turned their attention to the doctors who were in attendance upon the distinguished patient. Though they all the time had the full confidence of the President, his family, the Cabinet officers, and immediate friends, yet there seemed to be no limit to the abuse of the papers that was heaped upon them. They were called upon to extract the bullet under any circumstances. At one time they would be charged with being inefficient, and not employing sufficiently active measures, at an other time they were accused of meddlesomeness and wearing their patient out by excessive probing of the wound, and too numerous examinations. This abuse of the physicians was kept up for a long time after the President had died. They were often appealed to to call to their assistance notorious quacks and cranks.

Since General Grant has been ill, the newspapers have been pursuing his physicians with the same abuse that was heaped upon the medical attendants of President Garfield. They have the entire confidence of the patient, his family, and friends, but this does not satisfy them ; they, in their conceit, know more what should be done for him than physicians, patient, family, or friends. But they themselves are not in harmony in regard to the means that should be employed in treatment; they only agree in abusing the medical attendants. A few weeks ago, it was urged by certain ones, that the General's tongue should be cut out. If that organ was removed, and the surrounding tissues and glands destroyed, it was asserted that an immediate recovery would result. Those who recommended this treatment, however, did not undertake to describe how it was to be done, and at the same time prevent the patient from dying on the operating table, or very soon after, considering his feebleness and the poisoned condition of his system. But, now, since General Grant has been improving, these very same parties, who were urging to have his tongue cut out a short time ago, are declaring that his disease is not cancer at all—that it is only a "bad case of sore throat;" that it would now have been entirely well if it had not been for the meddlesomeness of the doctors.

When it was mentioned that morphine was, at times, administered to allay excessive pain and produce sleep, many croakers asserted that the General was being killed by morphine ; that it was enfeebling his system ; deranging his nutrition ; etc. We have seen it stated that the distinguished invalid had already been made a confirmed user of opium, so that he was constantly demanding it to gratify his appetite.

There may be some honor in being the medical attendant upon a distinguished man. But when the distinguished man becomes attacked by a fatal or very dangerous disease, along with enjoying the honor, a large amount of abuse will have to be endured. The physicians of General Washingson, to this day, have the credit of having killed him.

Although General Grant is now seemingly greatly better, yet it is very certain that, suffering with a cancerous affection as he is, the improvement is only temporary, and it will be only a few weeks, at the most, that his life will be prolonged. It is to be hoped that the physicians are mistaken in their diagnosis, but that is not probable. Portions of the broken-down tissue from the cancerous mass have been examined microscopically by experts, and it is not likely that a mistake could have been made as to the nature of the disease.

DEFAMATION.—We do not believe that physicians are in the habit of defaming one another or other persons. They have too much dignity of character, and their attention is too engrossed with the responsibilities of their high calling, to permit of their minds being occupied with envious feelings and allow them to consume any time in belittling and abusing competitors. We will state, however, for information, that Mr. Rogers, in his work on "Law and Medical Men," says that it is actionable to say of a person in his professional character, "He is no doctor; he bought his diploma for £10" (Mr. Rogers quotes the language employed in charges of judges, etc.). Any words imputing to a practicing physician misconduct or incapacity in the discharge of his professional duties, are actionable *per se*. Thus it is actionable, without proof of special damage, to accuse one of having caused the death of any patient through his ignorance or culpable negligence, as to say of a physician, "He killed my child by giving it too much calomel;" or, "He hath killed J. S. with physic, which physic was a pill;" or, "He was the death of J. P.; he has killed his patient with physic; it is a world of blood he has to answer for in this town through his ignorance; he did kill a woman and two children at Southampton; he did kill J. P. at Petersfield;" or, as an American did, "Dr. S. killed my children; he gave them teaspoonful-doses of calomel, and it killed them. They did not live long after they took it; they died right off the same day."

So, also, it is actionable, according to Mr. Rogers, to deny that a man possesses a special kind of knowledge, whenever such special knowledge is essential to the proper conduct of his profession which he pursues for a living. Thus to say of a physician, "Thou art a drunken fool and an ass. Thou wert never a scholar, nor even able to speak like a scholar," is actionable, because no man can be a good physician unless he be a scholar (*Cawdry vs. Highley*, *Cro. Car.* 270; *Godb.* 441). Although one may say with impunity of a justice of the peace, "He is a fool, an ass and a beetle-headed justice" (*Bill vs. Neal*). So, to say of a midwife, "Many have perished for her want of skill;" or, "She is an ignorant woman, and of small practice, and very unfortunate in her way; there are few she goes to but lie desperately ill or die under her hands," is actionable (Flower's case).

We will make one more quotation from this interesting book of Mr. Rogers': "A physician may fail to obtain the benefits which a grateful patient has wished him to have under a will, if—as was done in one case—after a long attendance on a patient, he thinks fit, when she is almost on her death-bed, to prepare and procure the execution of a will by which he becomes the principal object of her bounty to the exclusion of near relatives; and to do this without the intervention of any solicitor, or other person competent to give her advice, and to guard her against undue influence; for in such a case the interests of the public require that his conduct should be regarded by courts of justice with the utmost jealousy (*Greville vs. Lylee*). In another case, it was said that, although there was no rule of law which forbids a man to bequeath his property to his medical attendants, yet it is not a favorable circumstance for one in such a confidential position, with respect to a patient laboring under a severe disease, to take a large benefit under such a patient's will, more particularly, if it be executed in secrecy and the whole transaction assumes the character of a clandestine proceeding, and in such a case the *onus* will lie very heavily upon the party benefited, to maintain the validity of the will" (*Ashwell vs. Lomi*). "To promise a cure is unprofessional, and to obtain money on the faith of such a promise is sometimes dangerous." A person so doing has been successfully prosecuted for obtaining money under false pretenses.

LAPAROTOMY IN ACUTE PERITONITIS.—It is really to be hoped that in laparotomy a successful method of treating acute peritonitis may often be found. We can remember when this operation was regarded as exceedingly hazardous, and of doubtful propriety under any circumstances. Twenty years ago, we were called to a female patient suffering from enormous distention of the intestines by gas, resulting, no doubt, from inflammation. All other means failing to afford relief, and as it was evident that death would soon follow if relief was not given, we proposed to pass a trocar through the abdominal walls into the intestinal canal. Our associate medical attendant, a gentleman of high standing in the profession, refusing his consent in consequence of considering, as it was then generally regarded, that piercing or opening the abdomen was attended with the greatest danger, the operation was not performed, and the patient died. Since that time, we have known patients, affected in the same manner, to be promptly relieved, and rapidly recover by passing a trocar and canula through the abdominal walls into the intestinal canal.

In the *British Medical Journal* of March 14, it is stated that Mr. Traves reported the case of a woman 21 years old, in which the abdomen was opened and freely irrigated with water, and a drainage tube inserted, in consequence of diffused peritonitis, the result of the bursting of a pelvic abscess. Mr. Marsh also reported the case of a medical student, aged 19, suffering from critical symptoms of sudden and acute peritoneal inflammation, in which incision gave vent to about two pints of fetid pus. The abdomen was thoroughly washed out with a 1 to 60 solution of carbolic acid, and a drainage tube inserted. Under subsequent injections of a solution of iodine, 1 to 1,000, the patient recovered. Messrs. Bryant, Thornton, Powell, Barnwell, Goodhart and Meredith commended the treatment adopted in these cases.

As stated in the *Phil. Med. News*, the conviction seems to be gaining ground that, in view of the great fatality of acute diffused peritonitis, and the futility of ordinary means of treatment, laparotomy should be resorted to, thereby placing effusions into the peritoneal cavity on the same footing as pleural effusions. Its success in cases of peritonitis complicated by the presence of an ovarian tumor has long been established; and Mr. Lawson Tait states, in the *British Medical Journal*, for March 21, that he has opened the abdomen in not less than 44 cases on account of peritonitis, and that 41 recovered.

A Cæsarean Operation Performed by the Patient.—Several of our European exchanges are giving currency to an account of a case of this sort that was lately presented before a Bohemian medical society. A peasant woman had borne seven children, four of her labors having been terminated spontaneously, two with the forceps, and one by craniotomy. At her eighth confinement she had been in labor ineffectually for two days, with no attendant but a midwife, when she determined to perform the Cæsarean section upon herself, as she had once heard a description of that operation. Seizing a razor, she made an incision in the median line of the abdomen, which she carried down to the uterus. She then opened the uterine cavity with a bold cut, and extracted a living child, together with the placenta. A few hours afterward, the physician who reported the case found her exsanguinated, and with a dreadful wound of the abdomen, from which a coil of intestine protruded. Her surroundings were filthy in the extreme. The intestine having been cleansed and returned within the abdomen, the incision was closed, an antiseptic dressing was applied, and the patient made a perfect recovery, without a bad symptom. It is said that there is every reason to believe the story

BACTERIA TWO HUNDRED YEARS AGO.—The Amsterdam *Allgemeen Handelsblad* publishes a communication from Prof. E. Cohn, of the University of Breslau, who recapitulates the substance of a correspondence of the celebrated naturalist, Leeuwenhock, with Francis Aston, of London, a member of the Royal Society. Leeuwenhock, writing from Delft, in 1683, reports that among the *débris* of food remaining between his teeth, he had discovered, with the aid of the microscope, living organisms moving with great activity. He distinguishes various kinds among them, which he describes so precisely that they would be easily recognizable. One, which occurs least frequently, resembles a rod, the baccilus; others, twisting in curves, are bacteria; a third kind, creeping in snake fashion, is the vibro ugla; another kind, of extreme minuteness, resembles a swarm of flies rolled up in a ball, and is evidently the micrococcus. Its movements can not be traced with certainty. He says that this species seems to be made up of parallel threads, varying in length, and remaining immovable, while other specks move in and out through the web. Leeuwenhock marvels that these things could live in his mouth, notwithstanding his systematic habit of cleansing it. He instituted observations which showed that they were also to be found in the mouths of other persons. Some years later he could not discover any traces of those minute organisms, and he was led to attribute their disappearance to the use of hot coffee. But shortly afterward he rediscovered them as lively as ever. In September, 1692, he sent some sketches of them to the Royal Society. Professor Cohn observes that it would seem from this correspondence that the knowledge concerning these minute entities made no advance for nearly two centuries, and he remarks on the wonderful skill with which Leeuwenhock used the imperfect instruments of his time.—*London Medical Record.*

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—At the request of many members of the Association, the Illinois Central Railroad Company has arranged to run a special train of Pullman buffet sleeping cars for members, together with their families and friends, who may wish to attend the meeting, which is to be held in New Orleans on Tuesday, Wednesday, Thursday and Friday, April 28, 29, and 30, and May 1. The train will leave Chicago Saturday evening, April 25, at nine o'clock, and run through to New Orleans without change of cars, arriving at nine o'clock the following Monday morning. The rates will be as follows: Round-trip tickets good for fifteen days, $20; for forty days, $25; until June 1, $30. Those who wish to return by a different route, by way of Louisville, Cincinnati or St. Louis, will be provided with tickets at $5 in excess of these rates. The sleeping-car rates from Chicago to New Orleans will be $6 for one double berth, and $12 for a section. Early application should be made to Mr. C. S. Burton, Ticket Agent, 121 Randolph Street, Chicago, or to the General Passenger Agent, Mr. A. H. Hanson.

TREATMENT OF ILEUS.—We hope our readers will not overlook the first article in this number of the journal by Dr. Whittaker on washing out the stomach in the treatment of ileus. The doctor is a gentleman who, it is well known, keeps fully abreast of the times in his knowledge. He gives, in the way of explanation of the *modus operandi* of the treatment, the views of Ewald and Senator. "These authors, recognizing that the splanchnic nerves contain inhibitory as well as exciting fibres, are inclined to the view that the evacuation of the acrid contents of the bowel enables the peristaltic exciting fibres to get control of the inhibitory fibres, and thus substitute natural peristaltic for paralytic phenomena."

PREPARING FOR CHOLERA.—Although no official information has been received by the Marine Hospital Bureau of the existence of cholera in any part of Europe, the authorities are taking every possible precaution to prevent its introduction into this country. The sanitary inspectors attached to the foreign consulates have all been reappointed by the Secretary of State. The quarantine stations at Ship Island and Sapeto Sound are already in operation, and those at Delaware Breakwater and Cape Charles will be put in operation by the 1st of May.

INDEX MEDICUS.—We have received a circular from Drs. John S. Billings and Robert Fletcher, editors, announcing that this journal will be published in the future by Mr. Geo. S. Davis, of Detroit. Mrs. F. Leypoldt, administratrix of the estate of Frederick Leypoldt, the former publisher, has transferred the good will of it to Mr. Davis.

In consequence of the necessary delay in perfecting the arrangements of transferring the journal to its new proprietor, the January, February and March numbers will be issued in one volume. Thereafter it will appear monthly, as before.

PREPARATIONS OF WM. R. WARNER & CO.—The preparations of this house we see commended in all the medical journals. They must be good and as represented, or they would not certainly be so generally highly spoken of. In employing them in our own practice, we have never been disappointed in them. Their sugar-coated pills and granules we have always found soluble, and have always had reason to believe that they contain precisely the amount of ingredients that they are said to contain, whether such ingredients are cheap or expensive. It is a notorious fact that the quinine pills of some houses do not contain the amount of quinine marked upon their labels, but such an allegation can not be sustained against the house of Wm. R. Warner & Co.

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ADVERTISERS.—The subscribers of the CINCINNATI MEDICAL NEWS will find it to their interest to correspond with the advertisers of the journal. We know, for we have been informed to that effect by them, that our advertisers will be glad at any time to receive letters from our readers inquiring in regard to their preparations. The most of them have informed us that they will send, with pleasure, specimens to any one stating in his letter that he has seen their advertisement in the CINCINNATI MEDICAL NEWS.

Advertisements should always be read, and the preparations described in them, as far as possible, investigated. In this way the advertising pages become a valuable feature in a medical journal, informing readers of progress as well as the reading matter.

The following firms, we know, will be pleased to reply to letters of inquiry, and send specimens or circulars of their preparations gratis to all informing them that they have seen their advertisements in the CINCINNATI MEDICAL NEWS:

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Rio Chemical Co., St. Louis, Mo.
Dr. H. G. Farr, 75 Essex Street, Boston, Mass.

THE
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Original Contributions.

Facts Serving to Prove the Contagiousness of Tuberculosis; With Results of Experiments With Germ Traps Used in Detecting Tubercle-Bacilli in the Air of Places of Public Resort, and a Description of the Apparatus.

BY W. H. WEBB, M.D.

[Read before the College of Physicians of Philadelphia, Feb. 4, 1884.]
Reported for the CINCINNATI MEDICAL NEWS.

IT is in accord with the spirit of the age to attempt to get at the root of all things affecting the health of our race. The causes of tuberculosis and influences modifying the progress of the malady claim not only the active interest of those engaged in the field of scientific medical investigation, but the attention of every mind that fully appreciates the universal prevalence and immense mortality resulting from the scourge consumption. It may add somewhat to the interest, if not to the elucidation, of this subject to trace the progress of thought springing from the observation of clinicians of all ages. By collecting the expressions of the *master-workmen* of different times, we will see that knowledge upon the subject has been steadily progressive, and that what now seem to be proven facts, have been preceded by flashes of truth in almost every epoch of medical history. The discovery of the tubercle-bacillus was not drawn from the inspiration of genius, but from the shaping of clinical facts gathered in the progress of our art, from the time of the Father of Medicine until the day that Koch discovered a peculiar microbe in tuberculous patients.

The word tubercle was used by Hippocrates, but he applied it principally to designate small external tumors—phymatæ—as, hordeolum, furunculus, sycosis, anthrax, wheals, etc. It is said that the word was used by Celsus, about A.D. 20, but no special meaning was attached to it by him.

Franciscus Deleboe Sylvius, who lived between 1614 and 1672, was not only a strong advocate of the doctrines of Hippocrates, but also did much to advance the knowledge of this disease. He was the first to use the word tubercle in designating the hard nodules found in the lungs of the phthisical. He was also the first to speak of the formation of cavities and destruction of the lung tissue by the softening and breaking down of these hard masses. He describes three kinds of consumption—one of the blood; one of the lungs, occasioned by bad nutrition; and one of degenerated glands. Through this latter proposition he may be regarded as the originator of the theory of a relationship between consumption and scrophulosis. "He believed that in the predisposed the disease may be excited by contagion."

As a result of autopsies made by Willis, and also by Bonetus, from about 1640 to 1670, the subject of phthisis was very much advanced.

When Richard Morton's celebrated work appeared, the opinions set forth therein were not only greatly in advance of those of his own time, but were destined to supplant all others, and to be accepted as correct for more than one hundred years after his death. He asserted that all consumption originated through tubercles, and that they gave rise to the dry cough. The idea entertained by Hippocrates, that consumption was due to inflammation and ulceration, he strongly opposed. He also declared that he believed the disease to be propagated by infection. "For," said he, "this distemper—as I have observed by frequent experience—like a contagious fever, does infect those that lie with the sick person with a certain taint" (p. 67).

Desault also insisted that tubercles were the essence of consumption, and that ulceration of the lungs and hæmoptysis were the result of the deposit. He believed in the contagiousness of the disease when ulceration had occurred. A statement, which at this day seems to have been almost prophetic, occurs in his writing upon tuberculosis;

"Worms," he declares, occasioned by the putrefying lungs, "propagate the disease and cause it to spread."

From the time of Morton to 1793, the subject of tuberculosis demanded the attention of some of the most distinguished men in medicine. (Sydenham, F. Hoffman, Boerhaave, Van Swieten, Sauvages, Morgagni, Cullin, Hufeland, Portal, Stark, Ruysch, Stahl, Reid and Baumé.) At this time Baillie's great work appeared, in which he demonstrated the existence of tubercles in other organs besides the lungs.

Bayle, an independent worker as well as thinker, insisted most strenuously that phthisis is a general chronic disease, and owes its origin to a special principle—the tuberculous. He, too, denied most positively the teachings of Hippocrates, that consumption was due to inflammation and ulceration. To him is due the credit of discovering what is now known as miliary tuberculosis. "Out of nine hundred autopsies performed by him, he found 624 had tubercular phthisis, 185 the granular or miliary tubercle, 72 melanotic, 14 ulcerous, 4 the calculous, and 3 the cancerous." He says further: "This disease appears always to depend on a peculiarity of constitution. Hæmoptysis is a frequent symptom of consumption, and is sometimes mistaken for its cause; but it often happens that when hæmoptysis has been fatal, the lungs are found full of tubercles."

Laennec, who followed Bayle, declared that all consumptions, including scrophulosis, were nothing but the consequences of the tuberculous specific principle, which might be inherited or be acquired. In demonstrating his theory he made use of auscultation, which it is said he originated, in accurately determining the diseased condition of the lungs. Laennec's views in regard to the pathology of consumption, notwithstanding he had very strong opponents among his colleagues, were held for a long time. Schönlein, in the main, held with Laennec, but differed most positively with him in making a marked distinction between tuberculosis and scrophulosis. At this time scores of eminent investigators were busy with this subject, and the confusion of ideas that then existed occasioned the promulgation of many widely divergent theories; thus were described tuberculization of pus, tuberculous pus, gray tubercle, yellow tubercle, gray infiltration, tubercle granules, tubercle corpuscles, granulosis, albuminous tubercle, etc., etc. Indeed, the number of forms assumed by this disease was limited only by the number of writers upon it. This tended to give to the simplicity of the theories advanced by Laennec a great attraction to many, who held to them for sheer comfort of mind. Out of this dire confusion a way was opened by Virchow, whose cellular pathology gave us a positive science by which the theories of previous writers were exploded.

In the early part of 1882, Dr. Robert Koch made his name immortal by giving to the world the result of the researches and experiments by which he swept away all false ideas that had existed in regard to tuberculosis for a period of over two thousand years. It was then that he made the announcement that "Tuberculosis is a specific, infectious disease, caused by a specific micro-organism—the bacillus tuberculosis—which constitutes, in fact, the true tubercle virus." This statement is one of the most remarkable, in its import, in the history of medicine.

Koch reached this position by the results obtained from experiments made with the tubercle-bacilli which he had artificially cultivated. He prepared a nutritive substance and introduced into it a speck of pus taken from a tuberculous human lung. In this way he obtained a number of bacilli, with which he infected fresh material, and by frequent repetition of this process, which he carried on for many months, he succeeded in obtaining bacilli very many generations removed from those taken from the diseased lung. These cultivated bacilli were introduced into the circulation of healthy animals, and in every instance induced tuberculosis. Tubercles in large numbers were found in the lungs, liver and spleen of all the animals thus experimented upon.

The labors of the illustrious Pasteur, of France, and of Koch, of Germany, are now well known to us all. They are the leaders of a host of equally zealous investigators who have acquired more or less distinction through their efforts of this direction.

Villemin, Buhl, Bollinger, Fraenztel, Balmer, Ruhle of Bonn, Lichtheim, the late Prof. Cohnheim, Gaffky, Ewald, Ehrlich, Kowalski, Wilson Fox, Cheyne, Shakespeare, Sternberg, Ernst, Colin, Tappeiner, Williams and others, who form a legion of self-sacrificing, earnest and conscientious workers, banded together in the interests of science and of their fellow-men, and inspired by the hope of being able at some future day to stay the progress of a malady which has been the occasion of more deaths than all the epidemics of disease, and all the disasters by land and sea; not only command the attention and support of the scientific world, but also the gratitude of every intelligent human being.

With a rapid but steady pace those observers are advancing on the road which will soon lead to the desired goal. The clouds of error are being dissipated by newly discovered truths, and to-day the subject of tubercular phthisis is better understood than ever before. It is my purpose this evening to bring to the notice of the Fellows of the College some facts by which, I think, the contagiousness of tuberculosis is clearly demonstrated.

Careful researches by De Quatrefages, Cook, Livingston, Rush, Budd, and others, seem to prove that tuberculosis first appeared among the inhabitants of Europe, and gradually manifested itself in those parts of the world with which they had intercourse. If this is true, it is one of the best evidences of the contagiousness of phthisis.

A contagious or infectious disease can have but one cause, and this is eminently true of tuberculosis, which does not arise from a variety of causes, but is solely due to the tubercle-bacillus. Wherever this bacillus finds its proper nidus, it will there develop and multiply; and, if this should be in living animals or human beings, the progress of the disease will be determined by the character and amount of food offered for the growth of this germ; thus, with a nidus rich and plentiful, we may have a case of acute phthisis lasting not more than thirteen days; and, on the other hand, if the pabulum is poor and scant, the case may be a chronic one, extending over a period of twenty-five years, such a case having occurred in my own practice.

The bacilli may enter the system through the lungs or by the stomach. The air we breathe, as well as the food we take, especially in the vicinity of the phthisical, may be laden with these germs. The air of the ventilating flues at the Brompton Hospital, when carefully examined, was found to contain tubercle-bacilli in fair abundance. The sputa of tuberculous patients drying upon our streets is ground into an impalpable powder by the feet of pedestrians, and is then disseminated through the air to be inhaled alike by the healthy as well as those predisposed to tuberculosis. Such sputa, mixed with the dirt of the street, has been collected, dried and powdered again, at frequent intervals during a period of several months. Guinea-pigs were then inoculated with this matter, and in a short time the animals thus treated died from tuberculosis.

To admit that the tubercle-bacillus is a pathological product is to express a belief in spontaneous generation, and I feel sure that none of my enlightened hearers are prepared to subscribe to that doctrine.

It is asserted, by some pathologists, that other matter or irritant than the tubercle-bacillus is capable of producing the disease. This idea is not a new one, for Richard Morton says: "Chalky stones that are preternaturally bred in the lungs; or nails, or other hard bodies, slipping down into the lungs, when persons laugh, are to be recorded among the causes of consumption of the lungs;" and he narrates a case, p. 247.

It is also claimed by a number of writers that certain callings or occupations may be a cause of tuberculosis, owing to the fine particles of dust inhaled by those employed. Thus coal miners, dry grinders, stone cutters, molders, operatives in cotton and woolen mills, etc., are apt to have the disease. But those who believed that the dust breathed by individuals engaged in these occupations might occasion phthisis, were evidently oblivious of the fact that the air carried, in the form of germs, far more potent factors; and that while the dust may have produced an irritation of the air passages, the presence of the tubercle-bacilli was essential to the production of the disease. The inhalation of irritants, or lowered vitality, occasioned by certain occupations, may cause the predisposition, but they are never the cause of the disease *per se.*

Not all the predisposing causes united could in any instance induce tuberculosis without the advent of the tubercle-bacillus. That something more is needed was admitted by Pollock twenty years ago, when he declared that there must be "some subtle agent to precipitate, concentrate and shape these elements of disease into tubercle." And Da Costa says, "Whatever it be, is something special."

Experiments have demonstrated beyond doubt that it is impossible to induce true tuberculosis in any case where proper precautions have been taken to remove from the irritant used all living germs. This is now accepted as a fact by many of those who once held a contrary opinion. Wilson Fox, Cheyne, Sternberg and others, who performed these experiments under the conditions mentioned, have acknowledged that under such circumstances it was impossible to produce the disease.

Objections are also made to the fact that these bacilli are the cause of tubercle, because they were not found in all the cases of tuberculosis examined by certain investigators. It is fair to presume that in these instances they must have escaped detection, since bacilli have been found in every case of tuberculosis examined by careful observers.

Many instances are recorded where foreign bodies have been carried into the lungs by gunshot wounds or otherwise, without occasioning much disturbance in the parts, or seriously affecting the health.

Rush, with his experience of the Revolutionary War, declared that he had never known a case of phthisis to result from wounds in the lungs, and this observation was supported by the Surgeon General of the Royal Army.

[NOTE.—That the excretion of these bacilli might prove to be the *materies morbi*, was suggested by me some time ago; and this opinion is also entertained by Dr. G. M. Sternberg, U. S. A., who subsequently made the same suggestion in the *Med. Record*, New York, October 25, 1884.]

A number of cases of gunshot wounds of the lungs occurred during the late war, but, as far as known, they were not the occasion of any death by phthisis.

I am free to admit that, in cases where a predisposition exists, it may be still further developed by the presence of an irritant, just as a furuncle in one individual may be harmless, and in another the starting point of a cancer. The late General Baxter, of this city, received a wound in the lungs on the 6th of May, 1864, and was more or less actively engaged in his duties until twelve years afterward, when, during a fit of coughing, he ejected what appeared to be a hardened bit of pus. This, upon examination, proved to be the envelope of a small piece of coarse, red cloth, half an inch in diameter (such as is used for the stiffening and padding of coats, which had been carried into his lungs at the time he received the wound in 1864. During all this interval there had been a constant suppuration of the lungs, occasioning considerable discomfort, but not sufficient to render him unable to fill several important positions demanding his careful attention. Three years after expelling the foreign body (seventeen years from the time he received the wound) he died, it is said, from phthisis. In this instance, admitting that he died from phthisis, a predisposition to the disease was evidently established by a greatly lowered vitality, occasioned by the long continued suppuration. For twelve years he lived without a sign of phthisis; but after he had rid his lungs of the original irritant, the bacillus tuberculosis found its way to the rich soil so long prepared for its reception, and there multiplied until the life of the individual was ended.

So certain diseases, occasioning an irritation or a lowered vitality of the pulmonary mucous membrane, have the reputation of being the indirect causes of tuberculosis. Measles, especially when occurring in children of phthisical parents, are liable to have consumption as a sequel. The mucous membranes are implicated in this disease, probably more so than in any of the eruptive fevers; the epithelium is cast off, and the denuded membrane exposed to the direct contact of the tubercle-bacillus.

It has been satisfactorily demonstrated that tuberculosis may be caused by inoculation in the human subject. Laennec, whilst examining a vertebra containing tubercle, slightly wounded one of his fingers with the saw blade. In the site of this wound, a small, rounded tumor subsequently appeared, which, upon investigation, exhibited all the physical characters of tubercle. It was destroyed by the application of an escharotic, and no bad effects resulted from it.

Another instance was that of a fisherman free from tuberculosis, but suffering from gangrene of the toe, who was purposely inoculated. Thirty-seven days after the experiment he died, and the autopsy revealed a tuberculous deposit in the lungs and liver.

But the most satisfactory evidence of the effects of inoculation of tubercle, is that presented in the case recorded by Dr. E. A. Tscherning. The subject, employed as cook in the family of Prof. H., was a perfectly healthy woman, about twenty-four years of age, with a history unexceptionally free from any hereditary taint of scrofulous or tuberculous affections. After a short illness the professor died of phthisis. The cook, unfortunately, broke the glass sputum-cup used by her employer, and a spicula from it punctured one of her fingers. Fourteen days afterward there appeared at this point what seemed to be a felon. This was treated at Prof. Studgaard's clinic, and at the end of a few weeks the finger was much better; a little nodule, however, about half as large as a pea, was found to exist in the subcutaneous connective tissue, which after awhile became tender and œdematous. This was now cut out, and the wound healed readily. About three months from the time of the accident, Prof. Studgaard found that the sheath of the tendon was thickened, and two cubital and two axillary glands were enlarged. He disarticulated the middle finger, and the tendon, with its thickened sheath, as well as the enlarged glands at elbow and axilla, were dissected away. Upon examination, the sheath of the tendon was found filled with pale granulations. Sections of the sheath and of the extirpated glands were subsequently subjected to microscopic investigation, and numerous tubercle-bacilli found in them, which positively established the peculiar character of the affection.

Dr. Tscherning has observed upward of thirty cases of localized tuberculosis, and in each instance the microscopical appearances were the same as in this case.

Many eminent men, by their constant attendance upon the phthisical, and by their close and frequent study of the post-mortem conditions of their cases, have been made victims to the disease themselves. Among those who have met death in this way may be mentioned Bayle, Laennec, Delaburg, Dance, Young-Thomas, and many other names could be added.

Much stress has been laid on heredity as being one of the chief causes of the vast mortality from this disease. It is my belief that phthisis is never transmitted from parent to child; it is simply a predisposition that is inherited. By predisposition I mean a greatly lessened power of resistance in the tissues, especially in the lymphatic system. If tuberculosis was inherited, we might expect to find some indications of this in the fœtus, but the observations of Guizot, Gluge, Heller, and Virchow have shown that this is not the case. In 1,300 fœtuses examined by Heller there was no evidences of a tuberculous taint in any one of them, notwithstanding the fact that in one instance the patient died of phthisis with the fœtus in utero. Virchow, with his experience of more than fifty years, says "he had not seen a single case of direct transfer in the fœtus." This also holds true in regard to the offspring of animals which have been under observation while suffering from tuberculosis; there is no instance on record in which they have exhibited a trace of the disease.

The presence of the disease in infants is undoubtedly due to the bacillus, or its spores, contained in the milk of the phthisical mother, or in the air it is constantly obliged to breathe. In other words, the disease is not transmitted, but it is acquired. I have elsewhere shown the fallacy of the hereditary transmission of the disease.

There are but few insurance companies that will accept as a risk any one whose family history is not clear of tuberculosis; hence it would seem that such careful exclusion would remove all questions of hereditary transmission in those losses which they may sustain by deaths from phthisis. One of the most conscientious companies in this respect is the Mutual Life Insurance Company, of New York. It is especially careful in excluding such risks, and will not only refuse to accept an applicant who has a phthisical history, howsoever remote, but will not regard an application in which there is the least evidence of a predisposition to the disease, no matter what the age of the applicant may be. Notwithstanding the exercise of an unusual amount of vigilance, they are nevertheless obliged to declare that "Consumption has been the occasion of more deaths than any other disease, giving a percentage of $17\frac{61}{100}$ of the total mortality; while deaths recorded under other headings, but properly belonging to this, would swell the number to 20 per cent." Here, then, is a freedom from an hereditary taint, as far as rigid examinations are capable of determining it. Under such circumstances the rate of mortality is surprising to those, at least, who have faith in the hereditary transmission of the disease. A few years previous to that in which this report was made, the death-rate from consumption in the adult male population of New York City was $30\frac{17}{100}$ per cent. This is but little over 13 per cent. of the deaths among those who were considered especially exempt from the disease.

It would be impossible to enumerate the so-called causes of tuberculosis. The disease has been attributed to every imaginable influence which could occasion a morbid condition of the system. This error is readily accounted for when it is understood that any influence which will bring about a lowered vitality of the body will induce a predisposition to disease, which is established by the presence of the bacillus tuberculosis.

Age.—In looking over "health reports" and other statistics, I have been surprised at finding records relating to the time of life when tuberculosis is most prevalent, which are entirely at variance with the ideas entertained by many practitioners. It is very generally believed that at the age of puberty, especially in those supposed to possess hereditary taint, phthisis is most apt to manifest itself, and that the liability to contract the disease is lessened with advancing years. It seems, however, that this is not the case, for in early childhood and at puberty the mortality is less than at any other period in life. There is reason for believing that the best way to determine the time of life at which the disease is most fatal is to compare the death-rate occasioned by it at certain periods of life with the number of living persons at the same age. This has been done by several reliable persons, including Dr. Edgar Holden, and I will read to you an interesting table prepared by A. Wuerzberg, the librarian of the Imperial Health Office at Berlin, Prussia. The table is as follows:—

Of 10,000 individuals aged:

0– 1 yr.	there die	annually of	consumption	$25\frac{45}{100}$
1– 2	"	"	"	$20\frac{41}{100}$
5–10	"	"	"	$4\frac{66}{100}$
15–20	"	"	"	$18\frac{37}{100}$
20–25	"	"	"	$30\frac{24}{100}$
25–30	"	"	"	$36\frac{73}{100}$
30–40	"	"	"	$41\frac{12}{100}$
50–60	"	"	"	$67\frac{94}{100}$
60–70	"	"	"	$93\frac{18}{100}$
70–80	"	"	"	$61\frac{72}{100}$
over 80	"	"	"	$25\frac{80}{100}$

This table goes to show that at the two extremes of life, where vitality is at the lowest, thus lessening the power of resistance, the disease is most fatal.

It must not be forgotten that among the many causes which lead to a predisposition to tuberculosis, conditions of mental depression play an active part. Bad habits or immoral conduct, which lead to bitter regrets; or domestic infelicity, occasioning long-continued fret and worry, will produce a depression of this character more or less marked. A case recently came under my notice in which the patient's health was first affected by the unfortunate conditions of his domestic affairs; they were the occasion of continued anxiety and worriment for several years, and finally brought him into a condition of nervous exhaustion. This was soon followed by the signs of phthisis, and he died about six months afterward. In this case the predisposition was certainly due to a lowered vitality, induced by long-continued mental depression, aided somewhat by the patient's occupation, which was that of a book-keeper. There was no hereditary tendency to the disease, and had he been more fortunate in his domestic relations he might still be living.

The following interesting cases, which I have personally investigated, will go to support some of the assertions I have made in my paper:—

CASE 1.—J. E., an invalid, was married; twelve months afterward his wife gave birth to a child, and in the following month the father died of phthisis. At the age of five months the child died of marasmus, and in sixteen months after her accouchement the wife died of phthisis. She was of a healthy and long lived family, but had occupied the same room with her husband during his illness.

CASE 2.—S. Y. was a healthy young man who married a lady that was physically below par. About a year after marriage she gave birth to a child, and from this period onward she declined in health, and ultimately died of phthisis five years afterward. Eighteen months prior to her death her husband exhibited symptoms of tubercular laryngitis, and died of consumption four weeks before his wife. In this case I ascertained that the wife had come from a tuberculous family (her parents and five sisters having died from the disease), while in the husband's family there was not a trace of tuberculosis, his parents living far beyond the allotted threescore and ten, and his brothers and sisters in the full enjoyment of health. This gentleman, who was greatly devoted to his wife, had been constant in his attendance upon her and had slept in the same room.

CASE 3.—I. R., a young man, aged 27 years, of very temperate and regular habits, who presented no family history of tuberculosis, and whose constitution and general health were excellent, married a young lady of delicate health, in whose family consumption had caused the death of father, mother and three sisters. The occupation of the young man was that of ticket agent in a railroad office. About three and a half years after his marriage he became ill, and a year after the commencement of his illness died of phthisis. Two years and a half subsequent to his death his wife died of the same disease.

In the first case narrated to you the healthy, robust bride certainly contracted the disease from her husband. In the second case the young man, with an excellent family history and in good health at the time of his marriage, not only contracted the disease from his phthisical wife, but died of it four weeks before she did. In the third case we have a healthy and vigorous young man, with an excellent family history, marrying a phthisical girl from a phthisical family, and what was the result? Through his close companionship with his consumptive wife he contracts the disease which occasions his death two and a half years before his wife succumbs to the malady.

(*To be continued.*)

Cholera, and the Lesson of the Hour.

By W. R. Cluness, M.D., Member of the State Board of Health of California. Read before the State Board of Health.

In view of the prevalence of cholera in France, Italy, and Spain, during the last summer, and the probabilities of its reaching America in the near future, the various Boards of Health throughout the nation have been issuing bulletins advising the people of the danger which threatens them; and although the residents of the Pacific Coast, by reason of their remoteness from the point of its probable entrance, may enjoy a greater immunity from the disease than those living upon our Atlantic seaboard, yet when we consider its infectiousness and portability, and the constant and rapid intercommunication existing between Europe and all portions of our territory, we should not be betrayed into fancied security. Time and again it has been known to be transferred in the personal effects of immigrants to remote interior districts without first appearing at any port of entry, and it is by no means improbable that the first cases may spring up amongst ourselves instead at some more exposed point. In 1876 no less than three distinct foci of cholera were thus developed in remotely located centers of America, all of which were directly traceable to the almost simultaneous exposure to the atmosphere of bedding or other luggage of immigrants from infected districts of Europe; and in the same manner it may even this autumn be imported into California by an immigrant or returning tourist. This method of its importation has also given rise to the idea that it sometimes travels in a sort of epidemic wave through meteorological influences over a continent, or from one continent to another, and attacks the residents of a district without personal contact. Although, however, there is yet much in connection with cholera that is still *sub judice*, there is, nevertheless, nothing more clearly demonstrated than that it requires for its propagation the existence of a specific organic germ, together with a soil of alkaline reaction. Whenever these are found, and when in addition an atmospheric condition favorable to the spread of the disease exists, coupled with insanitary conditions generally, but especially impure drinking water and a foul condition of privies and cesspools, cholera is sure to prevail in its most malignant and fatal form wherever the germ obtains lodgment.

While, therefore, all of the requisites for its propagation and spread may be truthfully said to exist at present in many places in California, excepting the germ itself, and when it is known that the germ is liable to be imported into our State at any moment, it is deemed opportune to sound this note of warning, and to offer a few suggestions for the guidance of our people. It is not intended, however, to present an elaborate essay upon its etiology or treatment, but rather to offer a few practical observations which it is considered to be the duty, because within the power, of every citizen to adopt. The remarkable progress made during the past decade in sanitary science and preventive medicine, materially aid us in this respect, for we can now say of epidemic diseases of all kinds, if we put our knowledge into full practice, thus far shalt thou go and no farther. But the supineness of man and his thirst for gold, together with the exaggerated respect he pays thereto, are so great as to almost wholly divert his attention from the laws of health, and to induce him to trust to his pound of cure rather than the ounce of prevention.

When we learn, as surely we will erelong, that health is wealth, that for every death which occurs prematurely, we are impoverished just so many dollars, and that political economists can estimate to a dollar the money value to a community of this unnecessary loss, we will have reached that stage of progress in civilization which will pay a just respect to the inestimable value of preventive medicine, instead of blindly trusting to the efficacy of drugs for the cure of disease. A man dies of cholera, yellow fever, diphtheria, typhoid fever, or any other preventable disease, and is buried, and the idea never enters the minds of his afflicted relatives that to his own or their neglect of the plainest sanitary precautions is attributable his untimely death; but if a thousand dollars are lost by reason of defective collateral security, precautions against future loss from a similar cause are at once taken, and a repetition of the loss is rendered highly improbable; and there is no contagiousness in connection with the moneyed transaction, an individual, or family usually having to bear the burden, whereas the health and lives of a whole community, State, or Nation are jeopardized by the existence in their midst of a single case of contagious or communicable disease, and thousands of lives and millions of dollars are likely to be sacrificed in consequence thereof.

Let us consider for a moment the moneyed loss to Memphis arising from the epidemic of cholera which prevailed there in 1873, including its loss of life; the distraction of its business; the stagnation of all its trade, including its shipping and railroad travel; the loss sustained by laborers and those employed in the various trades and manufactures; the loss to its hotels and boarding houses, restaurants and lodging houses, and the money paid to physicians, druggists, and nurses, together with the thousands of other necessities incident to the existence of a fatal epidemic, and we have the enormous sum of over twenty millions of dollars as the money penalty of that city, resulting from their neglect of sanitary laws. But if this sum of money be the cost in dollars of their utter disregard of the laws of health, who can estimate the loss which that city sustained by the epidemic of yellow fever which prevailed there in 1878. And yet, no sooner had the fell destroyer taken his leave of them, in 1873, than the people forgot the duty of the hour, and utterly neglected to remove the cause which rendered the disease so fatal in their midst; for, like the rear guard of a victorious army, yellow fever followed in the wake of the cholera, and claimed its tribute. And still the people remained supine to all measures tending to prevent a repetition of these direful disasters. For five years they rested in conscious security, making phenomenal progress in the accumulation of wealth, and rioting in the luxuries attendant thereon. Its streets, we are informed, were unclean; its alleys and back yards reeking with garbage and filth of all kinds; its seven thousand privies and cesspools, varying from twenty to forty feet in depth, filled, many of them to overflowing, with fermenting excrement, and never having been emptied since their construction, from twenty or forty years previously; its sewers inadequate and defective; its people suffering from the depressing influences of high living, and a debilitating atmosphere thus impregnated with the products of decomposition; all these, together with an exhausted treasury, found Memphis on the advent of yellow fever, in 1878, ready for the sacrifice which history records as having been the most direful that has occurred in modern times in any civilized country. It was surely rife with the elements of a great plague, and only needed the specific germ to diffuse it widely and fatally among a people who had forgotten that such a thing existed as the laws of health and disease.

And Toulon, in France, where cholera first made its appearance this year in Europe, was in like filthy condition upon its advent. And tens of thousands of lives in all nations of the earth are likely to be sacrificed because of the supineness and persistent neglect of sanitation of the authorities of one city.

And although equally unfavorable conditions for the propagation and spread of cholera and yellow fever nowhere exist in California, yet it is known that should the germ of either disease reach us at present, as a people we are in a condition to pay heavy tribute, for there are many foul disease-breeding places among us.

While, therefore, there are few things more certain than that cholera will reach us ere another season passes by—indeed, our National authorities deem it highly probable that it will reach America before the close of the present year—it becomes our duty to put our house in order *now*. Quarantine we know to be valuable, and much may be done thereby to ward off epidemic diseases of all kinds; but one so subtle as cholera, and whose germs, as already stated, may be lying hidden for months, requiring only to be exposed to become rapidly propagated, can hardly be kept at bay by this means for any considerable length of time. In preventive medicine alone lies our safety. The practical deductions, therefore, to be made are, that we should remove from amongst us those causes which are known to favor the propagation of the disease when once the seed is planted therein, so that should it reach us, it can be either stamped out at its inception or rendered comparatively harmless. And this can be done by adopting *cleanlinness* as our motto; cleanliness not only of person, but of property, food, drink, and all our surroundings.

Where insanitary conditions of any kind exist, they should be corrected. Where drinking water, the most potent source of the disease, is known to be impure, it should be at once purified, and where this is impracticable by ordinary means, it should be boiled before being drank. All privies and cesspools should be emptied of their foul contents, and thoroughly washed with a solution of sulphate of iron, two pounds to the gallon of water, to which may be added with advantage an ounce of sulphuric acid, or with bichloride of mercury, in the proportion of a drachm to the gallon. All damp cellars should be thoroughly cleansed and dried, where practicable, by exposure to a current of air. All stagnant pools of water should be drained and filled with earth. Indulgence in excess of all kinds, especially in the use of unwholesome food and alcoholic drinks, should be entirely avoided. In short, everything should be done *now* in consonance with the laws of health and hygiene, which science and observation teach us to be promotive of health, otherwise we will surely pay the penalty. Many of the conditions referred to are especially known to exist in our inland towns and cities, where the people depend upon wells for their supply of drinking water, and upon the privy and cesspool system for their excrement and filth. The prevalent notion that, because water is clear and apparently free from impurities, it must, therefore, be potable and wholesome, should never be accepted without careful examination and analysis, for frequently that water which is the clearest, is found, by chemical analysis, to be the most unwholesome and deleterious. Nor should it be imagined that, because privy and cesspool filth are out of sight, they are consequently out of reach of causing disease. Nothing can be more fallacious, for they are not only constantly undergoing putrefaction, fermentation and generating poisonous gases, which reach our systems through the atmosphere, but the products are also absorbed into the soil, and frequently find their way into our drinking water.

But we will be told that it costs too much to remove the accumulations of filth from our premises, and that it will be cheaper and better to hide it from view with earth or sand. The idea is fallacious, for we are thus storing up for ourselves disease-breeding influences, which will surely bring upon us a day of retribution. Their complete removal and utilization for fertilizing purposes is the only known method by which they can be rendered not only absolutely harmless, but positively useful; for although rivers and water courses generally are made to subserve the purpose of conveying them away harmlessly for a time, yet in the end they become noxious in places, and, as population increases largely, they have to be abandoned. As a prophylactic, therefore, and as a means of rendering the poison of cholera as harmless as possible, thorough cleanliness, in its fullest significance, should be *now* adopted by the people. No half-way measure should suffice, and no fancied security because of a "glorious climate" should lull the people into a condition of apathy and neglect of their imperative duty at this hour.

But to secure the advantages arising from thorough cleanliness, the efficacy of concerted action is necessary; for what avail is it for one to cleanse and purify while another allows his premises to reek with filth? or what does it avail us to lock our front doors against burglars if our side doors and windows be left open? The old and trite adage, that the door of the stable should be locked before the horse is stolen, is especially applicable in the case of all infectious diseases, but more particularly with reference to cholera, the most infectious of them all. It is upon its westward march, and the most extraordinary precautions should be taken now by the whole people, and before it reaches any part of America; for it is liable to pounce upon us like a tiger upon his prey, or like a thief in the night, and woe betide us if found unprepared for its onset. The whole public mind will then be eager for information; terror will fasten upon those who are attacked as well as upon those in their vicinity, and all will be thrown into the greatest confusion. But it will then be too late to adopt efficient means to prevent its spread, for it is universally conceded to be utterly impossible to institute proper sanitary regulations in cholera districts after the disease has once become epidemic.

A few years ago we had a slight foretaste of the baneful influence upon trade and traffic resulting from our neglect in allowing smallpox—the most easily controlled disease epidemic in its nature known to us—to spread in our midst, and to obtain a foothold in different parts of our State. And Philadelphia also, according to an estimate which I have recently read, paid the enormous sum of twenty-eight million dollars in 1871 and 1872 for a like neglect and from the same cause. Should, however, the cholera reach us, and find us in our present insanitary condition, no amount of sanitation after its advent can prevent it from claiming victims by the thousand, and no political economist can ever estimate the moneyed loss which will result to our State. To the people it matters not at present whether Professor Koch has discovered the germ which causes cholera, nor does it even concern them whether or not the whole germ theory is true or false. But it is of the most vital importance to them to know how to prevent it from reaching their homes; and we have endeavored briefly to point out the only known method. How to treat it, should it unfortunately come to us, is an entirely different and more difficult problem to solve; whereas it can be confidently and truthfully asserted that, should timely preventive measures, such as have been briefly indicated, be adopted, it can nowhere in California become seriously epidemic. Prompt action on the part of the people themselves will render it so benign that it will pass over us harmlessly, excepting in the few districts that it will always exist in which reasonable sanitary precautions are never taken.

Although it was at first intended to say nothing regarding the treatment of cholera, yet we have been so favorably impressed with some observations upon the subject by Dr. J. M. Woodward, Supervising Surgeon of the United States Hospital Marine Service, in his report on cholera to the Government in 1873, that we deem it not out of place to here repeat them, especially as the more recent investigations upon the subject tend to confirm their importance and value. Dr. Curtin, in charge of the department of the Philadelphia Hospital for the Insane, in 1866, having satisfactorily demonstrated the inutility of the ordinary remedies for cholera, recollected having read of the beneficial effect of sulphuric acid, determined to give it a trial. He accordingly instructed the nurses in the hospital to inform the patients that upon the following day they would all be treated to lemonade. To his great surprise and gratification, in about twelve hours after the commencement of the treatment there was not a new case of cholera in the hospital. The supply of white sugar having temporarily given out at the expiration of the sixth day, the treatment was suspended for two days, when the disease reappeared with about the same virulence as before. Upon the resumption and continuance of the treatment, however, it wholly disappeared from the hospital. Moreover, it is stated that one old lady of Celtic origin detected the deception, and informed the doctor that *he could not decave her wid his liminade, that it was nothing but ile of vitriol.* And she paid the penalty of her acuteness with her life, for she died of cholera on the following day. He also informs us that the same treatment was adopted in the surgical wards of the hospital, and that not a single case of cholera appeared in them. His method of preparing the lemonade was by adding twenty drops of aromatic sulphuric acid to about four ounces of water, sweetened to suit the taste, and to complete the deception a piece of lemon peel was dropped into the liquid. This quantity they usually drank two or three times daily with avidity.

Inasmuch, therefore, as the researches of the scientists of the day, who have been devoting their time and sacrificing their lives in the investigation of the subject, have found that an alkaline soil favors the propagation of the germs of cholera, whereas they are readily destroyed by mineral acids, it is highly probable that this method of treatment forms the best means for its cure. It may also be stated that other acids had been previously tried without producing any apparent good effect. But, next to cleanliness, the most important factor in the treatment of cholera is prompt attention to the diarrhœa which almost invariably precedes the attack. When this first makes its appearance, an intelligent physician should be summoned. Nor should the physician be hypercritical in his efforts to differentiate in cholera times between simple diarrhœa, cholera morbus and genuine Asiatic cholera, for during such epidemics there are always numberless cases of cholera of so mild a character as to be readily mistaken for diarrhœa, and their true nature only determined by the development therefrom of genuine cholera. All doubtful cases should, therefore, be treated as genuine ones and isolated and treated accordingly.

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PATENT MEDICINE AND THE PROPHYLAXIS OF OLD AGE.—Fourteen persons died of "old age" in Philadelphia last week, and only three of small-pox. The former appears to be the more fatal disease, but we don't hear of persons getting vaccinated, in order that they may not catch it. Of the several thousand patent medicines advertised, not one is warranted to prevent a person from dying from the apparently incurable disease of "old age," and yet hundreds of these nostrums will effectually ward off the malady.—*Norristown Herald.*

Nosographic Revision of the Progressive Muscular Atrophies.

Clinical Lecture by PROFESSOR CHARCOT, delivered at the Hospital de la Salpetriere.

Translated for MEDICAL NEWS, from the French by Dr. Illowy, Cincinnati, Ohio.

(*Continued from Last Number.*)

HOWEVER, the point of importance is to know what has become and what becomes of the cases which modern scientific research constantly detaches from the type Duchene-Aran. Under what new form will they present themselves to us; in what nosographic category shall we see them figure, or under what category can we classify them!

Gentlemen, beside the amyotrophies of spinal origin, there exists a whole class which grows every day, in which the progressive myopathy, more or less generalized, is independent of any lesion of the nervous centres or of the peripheral nerves. We have here a protopathic malady of the muscle—*primitive myopathies*. As an example of this species of disease, we can cite the *pseudo-hypertrophic* or *myosclerotic paralysis* of Duchenne (of Boulogne). We know from Eulenbourg and Cohnheim since 1866, and from me since 1871, that in these cases the lesion of the muscle is completely independent of any lesion of the spinal cord or of the nerves. Apropos to this, I will just mention here, how strenuously I protested at that epoch against the prevailing tendency of referring all progressive myopathies to lesions of the nervous centres. There are, I said then, primitive myopathies, and all the ulterior observations have demonstrated that I was right. They tend to demonstrate, moreover, that these primitive myopathies are more numerous and of greater variety in their manifestations than was at first supposed.

But this form of myopathy, the pseudo-hypertrophic paralysis, as described by Duchenne, (of Boulogne) this great artist in neuro-nosography, is so far removed by its clinical characteristics from progressive spinal amyotrophies that they have been rarely clinically assimilated. Thus, pseudo-hypertrophic paralysis is a disease of infancy. It is rarely met with after the twentieth year. We perceive that the child becomes awkward in its walk, that it becomes more easily fatigued than other children of the same age, for it is always, according to the description of Duchenne, in the inferior members that the disease makes its debut. After that the upper limbs may, in their turn, become affected; but whatever be the degree of the affection, the hands remain, generally, free. Lastly, the affected muscles, or at least a considerable number of them, present an augmentation of volume, an enormous prominence, giving to a limb or to a segment thereof, herculean forms. Anatomically, this hypertrophy is characterized by lesions of the interstitial tissue, which are not found to that extent in spinal amyotrophies. Moreover, a peculiarity not found in the malady of Duchenne-Aran, heredity plays a great role in the development of pseudo-hypertrophy of the muscles. We find frequently in one family several children seized at the same time, whose parents or collateral relatives may present the same disease.

The patient Gail . . . is nineteen years old. The malady with which he is affected, and which in him presents all the clinical characteristics of the myosclerotic paralysis of Duchenne, made its appearance in his infancy. Behold the enormous prominence, the athletic appearance, of the muscles of the calf. They present, in a stage of repose, a notable augmentation of consistence, and when contracted, they are as hard as a rock. But if you test the resistance of these organs, you find that, though they be herculean in form, they are far from being so in force; there exists a veritable functional impotency, non-paralytic impotency—that is to say, not of nervous origin, but corresponding more or less exactly, in all probability, to the degree of alteration of the muscular fasciculi. At the side of this hypertrophy, you can see in our patient a veritable diminution of volume, and especially of force, in the upper limbs, particularly in the muscles of the arm. This is the only point of resemblance between the myo-sclerotic paralysis and the progressive amyotrophies of spinal origin, and which might perhaps cause them to be confounded together, although they are markedly distinct one from the other.

There exists still another form of muscular atrophy without neuropathy, which attacks young people or infants. It is that which Prof. Erb (Heidelberg) has lately described under the name *Juvenile Form of Progressive Muscular Atrophy*, and which he with reason considers entirely distinct from the spinal forms hitherto described.* The form in question is not perhaps entirely new, but the description certainly contains new facts, or at least as were previously not properly valued and considered. The malady presents great analogies with the pseudo-hypertrophic paralysis, as Prof. Erb has also set forth. It makes its appearance about the twentieth year, more rarely during infancy. It may present at times, although its march is habitually a progressive one, periods of arrest, due perhaps to the efficacy of treatment; in one word, it lets the patients live, who are perfectly capable of procreating, and to reproduce generally, amyotrophic children, like unto them. It makes its debut in the upper members, more particularly the arm and the girdle of the scapula (Schultergürtel)—never in the thenar and hypothenar eminences. The inferior members may be seized in their turn; the calves, as in pseudo-hypertrophic paralysis, remaining generally free from any atrophy. It is really the atrophy which appears to be the characteristic fact; hypertrophy is rare, although Prof. Erb has sometimes noticed it in the deltoids, the triceps, the muscles of the calf. This diminution of volume of the muscles might lead to confounding the form of Erb with the malady of Aran-Duchenne, and in fact, if we examine the case which Duchenne has collected in his *Traite d'electrisation localisée*, we find a certain number which, as Prof. Erb has remarked, could be perfectly referred to the juvenile form. But this form is distinguished from the progressive muscular atrophy of spinal origin by a certain number of distinctive characteristics. There are, among others, the mode of invasion, which, in the juvenile form never occurs in the hands, (thenar and hypothenar eminences); absence of fibrilary jerks in the atrophied muscles; the results of electrization of these same muscles which never give the reaction of degeneration; the age of the debut always before the twentieth year; lastly, from an anatomo-pathological point of view, the complete absence of any spinal lesion.

The juvenile form, described by Prof. Erb, is therefore markedly distinct from the amyotrophies of spinal origin. But it is equally well marked, and distinct from pseudo-hypertrophic paralysis. I do not believe it, and here I coincide with the opinion emitted, although with a great deal of reserve, by Prof. Erb in his article, and which, it seems to me, throws a great deal of light upon the question now occupying us; apparent hypertrophy in the one case, atrophy in the other; this is the only point of difference. But it must be acknowledged, I think, that this distinctive characteristic is not fundamental. The hypertrophy is not, taking all in all, an essential constituent element of the malady called pseudo-hypertrophy. I am in a position to present you a case, which forms in some sort the transition between the juvenile form, with amyotrophy on the one side, and pseudo-hypertrophic paralysis on the other.

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*Prof. W. Erb. Ueber die Juvenile Form der progressiven Muskelatrophie, etc., Deutsch. Archiv. f. Klin. Medic., 1884.

In young Lang, . . . whom you see here, *the functional impotence is the dominant fact; as to any modification of the volume of the muscles, increase or decrease, it does not exist*, as M. Marie, the *chef de clinique*, caused me to observe, he having been struck by this peculiarity. This case reproduces then, so to speak, from the point of view of functional impotence, the juvenile form of Erb minus the atrophy, and the pseudo-hypertrophic paralysis minus the hypertrophy. It is not at all repugnant to the mind to admit that the alteration of the muscular fibres, primary cause of the feebleness, may be produced without any modification of the volume of the muscle. In Lang, . . who is now eleven years old, the malady made its debut *in his infancy*. The little patient presents the antero-posterior curvature of the back, the characteristic gait of pseudo-hypertrophic patients. When you lay him down on the ground, on his back, he can not get up without aiding himself with his hands, which are placed on the knees, climbing along, as it were, the length of his thighs to resume finally the vertical position, as is ordinarily the case in this class of patients.

After this, look at the muscular masses, nowhere do yon find either atrophy or hypertrophy. I do not intend to say that the muscular system in this child is perfectly normal. What I mean is, that the eye does not observe any modification in the volume of the muscles; consequently the sole clinical fact dominant in him, is the diminution of force of these muscles, which are apparently normal as to volume.

Under what head shall we classify this case? Shall we put it in the category of the juvenile form of Erb, or in that of pseudo-hypertrophic paralysis of Duchenne? In one word, it seems to be a question not of distinct morbid species, but simply of varieties representing diverse modes of evolution of one and the same affection—*primitive, progressive myopathy.*

Here you have, then, a certain number of cases which you see can be removed from the type Duchenne-Aran. But this is not all; I shall show you further two other forms of muscular atrophy, which formerly formed part of the too large class of the malady.

TO BE CONTINUED.

Selections.

Transactions of the Buffalo Obstetrical Society.

Stated Meeting, March 24, 1885.

DR. J. W. KEENE read a paper on "The Use and Abuse of the Tampon in Abortion."

He took the ground that the tampon was often injudiciously employed in threatened abortions, and thus frequently precipitated the catastrophe it was intended to avert.

Various authors were quoted, all agreeing that the tampon was not only capable of exciting uterine contractions, but that it invariably did so, and was, moreover, employed by abortionists for the purpose of inducing miscarriage.

The indications for the tampon unanimously agreed upon by many of the authors cited were two: First, when the abortion was inevitable; and second, when the hemorrhage imperiled the woman's life, or endangered her health.

We should not, he said, be too ready to regard the abortion as inevitable; although many practitioners, and some of the authors, appear to consider every abortion that threatens as inevitable. Playfair states that abortion is inevitable, when the os is found beginning to open so that the finger can pass through it and touch the ovum, "especially if pains also exist." Other authorities were cited far more cautious in pronouncing an abortion inevitable.

The essayist then cited some of the instances recorded, where, in cases apparently past all hope, the abortion had not occurred, and the woman had gone to term. Hence, he thought that all doubtful cases should be treated as hopeful rather than as inevitable. If the fœtus was known to be dead, its speedy expulsion was, of course, to be desired; and the tampon was a safe and ready means with which to excite the necessary uterine action. But the diagnosis of death, prior to the fifth month, could be made with certainty in but few, very few, cases. The actual expulsion of the fœtus was about the only positive proof of its death, and, so long as its death was problematical, we should proceed as though it were known to be living. The reader thought Schroeder's view the safest one, viz.: "The hope of preventing the abortion should not be abandoned unless a part of the ovum has already passed out of the external os."

The second indication for the application of the tampon, viz., hemorrhage compromising the safety of the woman, the essayist thought, had quite as wide a range of latitude in its interpretation as at first. A hemorrhage which one physician would deem alarming, might be, in the opinion of another, a matter of small moment. It was here that the judgment of the physician must be his guide. Experience, idiosyncrasy, and the personal equation inevitably affect his judgment. The authorities differ, as was shown by citations from several works on obstetrics. Schroeder holds that bleeding may go on in these cases "to the highest degree of anæmia, syncope, and pulselessness, but is very seldom followed by death," nor is the woman's health permanently impaired thereby. Others would plug for a very slight hemorrhage. The proper course was, no doubt, the middle one between these extremes.

The reader deprecated the routine practice of plugging, merely as a preliminary measure, in threatened abortion with comparatively insignificent bleeding, and concluded his paper by saying: "Let it be laid down as an axiom, that the tampon is legitimately employed only when, for good and sufficient reasons, it is necessary to terminate gestation."

DISCUSSION.

Dr. R. L. Banta said that he had not observed such great danger of producing abortion with the tampon as the author of the paper would have us believe. He was formerly in the habit of using the tampon whenever he found a woman losing a thimbleful of blood, but of late he had not as great fear of this sort of hemorrhage. In one of his recent cases, he found the woman flowing profusely, and presumed the abortion inevitable. After watching the case awhile, he went away for an hour, and upon his return found the flow steadily going on. He then gave a full dose of morphine, and went home. The next morning the hemorrhage had ceased, and he now thought gestation would continue to term.

Dr. C. C. Frederick, in reviewing the various methods of tamponing the vagina for hemorrhage, advocated the employment of the colpeurynter of Braun as an efficient, as well as an easy and cleanly way of performing this operation. One of these rubber bags could easily be introduced into the vagina, and inflated, so as to completely dam up the flow; it could also be readily withdrawn, with little disturbance to the patient, when necessary to make an examination. He much preferred this method to any other, since he had become familiar with it, as neater, prompter, and more convenient.

Dr. Charles G. Stockton had been rather frequently called upon to consider whether or not he should use a tampon. The question of using the tampon arises at other times than that mentioned in the paper; for instance, when there is, after the escape of the fœtus, retention of the secundines. Many practitioners, he observed, were accustomed to use the tampon then, and he thought the dangers which were supposed to follow the retention of the secundines, involved questions worthy of discussion in this connection. He was surprised the other day when a young physician said to him that he never removed the secundines, unless late in pregnancy; that they always came away spontaneously, and that his patients never had septicæmia or other untoward conditions, mentioning something like one hundred or more cases that he had attended within a comparatively short time. This seemed surprising to him, and he would like to ask the members what their habit was in regard to the removal of the secundines in abortion cases.

Dr. M. Hartwig thought that if the tampon were used at all, the indications for its employment were correctly given in the paper. He was of the opinion that tampons should be given up almost entirely. Although he used them in some cases, he fully believed, as Schroeder states, that a woman will not bleed to death from abortion before the end of the fourth month. It was important to distinguish between the use of the tampon during pregnancy or after confinement, and in cases which have nothing to do with pregnancy—uterine bleeding from other causes. He should say that the latter cases were the only ones where he might use the tampon. The old-fashioned kite-tail tampon would certainly cause contraction of the womb. So, too, would the colpeurynter, if it was blown up sufficiently to check the bleeding. There were other ways of tamponing, as with compressed sponge; another method was to tampon the mouth of the womb through the speculum. This was the method he preferred if he used any. But, all told, in cases of bleeding during pregnancy or after the expulsion of the fœtus, he had decidedly come to the conviction that the tampon was unnecessary; because, if the hemorrhage was insignificant the woman could stand it; small doses of ergot, or even large doses—which never produce abortion of themselves—would usually check the flow. As a scientific ruling, he would put forth the idea that the tampon should not be used at all in these cases. The question of the viability of the fœtus ought to be decided with a good deal of probability. If the woman had bled considerably, and the os was patulous, it was safe to conclude that the fœtus was dead.

Dr. W. S. Tremaine was very glad to hear the foregoing views expressed. Of late he had given up the practice of obstetrics, except in consultation, though some years ago he did a good deal in this way. He never used a tampon but once, and never would again if he could avoid it. He deemed it one of the most barbarous, unsurgical and nonsensical things that was ever invented. Dr. Hartwig had expressed about his ideas in regard to it. He used to see a good deal of hemorrhage, and he generally succeeded in controlling it with alum-water, which was thrown up into the uterus. He had never seen a death from post-partum hemorrhage. When the bleeding was at all copious, abortion was inevitable; but about the surest way to bring it on was to give opium.

Dr. Thomas Lothrop could not understand how gentlemen who practice obstetrics, and have aborting women to care for, could get on well in their management of these cases, especially in the second and third months of pregnancy, without the employment of the tampon. He looked upon its use as an absolute necessity in many instances, and he criticised any method of practice which permitted women to lose large quantities of blood, when it could be controlled with a simple plug. It was seldom necessary to use the tampon until after the embryonic life was either extinct, or certain to become so, whatever was done. When he had felt compelled to use the tampon, it had almost always been in retention of the secundines after expulsion of the fœtus. His method of using it was to place the patient in the Sims' position, and, with the aid of the Sims' speculum, to pack the vagina tightly with cotton pledgets. As for septic infection, he had never had any such trouble following the tampon in his practice. There are two symptoms in abortion which he considered important to combat, viz., pain and hemorrhage, and the two agents which he recommended for this purpose, above all others, were opium and the tampon.

Dr. Alfred C. Girard (present by invitation) said that he was willing to give his opinion, since he had been so kindly asked to join in the discusion, for simply what it was worth when thrown into the scale. He had seen and treated a good many cases of hemorrhage of the character in question, and had tried many means to check it. When called to such a case, if he found the os partially dilated, and the cervical portion softened, he was satisfied that the fœtus was dead, and he felt, under such circumstances, that the best mode of procedure was to bring on rapid uterine contraction, expecting thereby to prevent further hemorrhage. In following this rule, he always felt that he had done the best he could for the patient. He believed that the tampon would, in nearly every case, bring on an abortion, so he would not advise its use when there was any reasonable hope of conducting the case to term. When, however, the physician was satisfied that the fœtus was dead, he could not see how he could do better than to employ the tampon, if the hemorrhage was persistent.

The President inferred that the general import of the paper was against the use of the tampon. He wished to take exception to that teaching. He had, during twenty-six years of practice, used the tampon constantly when needed, and had never yet had occasion to regret it. He employed the tampon for two purposes: First, in extreme cases, to save life when hemorrhage was alarming; second, to avoid the loss of blood in a class of cases where the flow, though not copious, could not be well borne for constitutional reasons. In short, he considered it the physician's duty to economize the loss of blood—to reduce it to the very minimum—in these days of anæmia, neurasthenia and mal-nutrition. He was sorry to hear gentlemen speak so slightingly of what they were pleased to term the "loss of a little blood." They asserted, with a grandiose air, that they were not afraid to see their patients bleed, that women could stand the loss of great quantities of blood, and yet recover. Did they recover? Was it not true that many such cases make sad work in getting up? Between anæmia, neurasthenia, and ill-nourished tissues on the one hand, and subinvolution, cellulitis and displacements on the other, they presented a pitiable picture of invalidism, which a little more care and thoroughness in early management, might sometimes have averted.

He thought that failure in the employment of the tampon was due to its imperfect adjustment. In case of violent hemorrhage it could certainly be controlled by placing the woman in the Sims' position, and packing the vagina tightly, so tight, indeed, that there could be no bleeding. In cases of hemorrhage, after the escape of the fœtus, the secundines, or a portion thereof, being undelivered, he would make the attempt to remove them if the bleeding was not violent. If, however, it was copious, he would tampon in the manner just mentioned. He would not hazard the further loss of blood, when he had such an efficient agent at hand to control it. He believed in the curette, and would employ it to remove any tags or shreds of the placenta yet hanging to the uterine walls, after which it would be good practice to brush over the cavity with Churchill's tincture of iodine.—*Buffalo Medical and Surgical Journal.*

The Address in Obstetrics Before the American Association, Held in New Orleans, 1885.

A Brief Review of the Growth of McDowell's Operation.

BY R. S. SUTTON, M.D., LL.D., OF PITTSBURG.

In the bleak cold of a December day, in 1809, a woman riding on horseback, arrived in Danville, Kentucky. She had taken farewell, perhaps forever, of relatives and friends, and had just completed a journey of sixty miles that she might be near a surgeon, who had promised to open her abdomen, and attempt to remove the large ovarian cyst it contained. She was to be the subject of an experiment—an experiment at the hands of a surgeon living on the borders of civilization—an experiment which would involve her life, and to which she must submit without the blessing of chloroform or ether. This woman possessed of marvelous courage, was Mrs. Crawford, McDowell's first patient in ovariotomy, and the first patient upon whom the operation was ever deliberately undertaken. She recovered and lived to the advanced age of seventy-nine years, a period of thirty years beyond the operation.

The conditions surrounding, and forming part of this operation, are worthy of more than a passing notice. At the present time, they are declared by the ablest operators to be of more than accidental importance.

In the light of all recent advances concerning the environs of an ovariotomy patient, I ask you to listen thoughtfully, and inquire of yourselves: Have modern operators had better environment than McDowell? Is their quarantine better than his was? Whether accident, or necessity, or the simplicity of border life, provided these conditions so favorable to recovery, your orator will not inquire, but hopes to show that McDowell did operate under conditions as favorable as does Dr. Keit or Mr. Lawson Tait.

1st. The patient was refused operation in her own home.

2d. She was operated upon in Dr. McDowell's own house.

3d. History mentions but one assistant present at the operation.

4th. The patient had never been tapped.

5th. We may safely infer that the room in which the opertion was performed, contained, at this early date in Kentucky, no superabundance of furniture or upholstery.

6th. That the room was ventilated by an open fireplace, is more than probable.

7th. The atmosphere was that of a healthy border town.

8th. No sponges were introduced into the abdomen.

9th. He ligated the pedicle and dropped it in.

This operation will stand the criticism of the most exacting specialist of the year 1885, save in two particulars, viz., the ligature was not carbolized or scalded, the ends of it were left hanging out of the lower angle of the wound, and merely turning the woman on her side to permit all fluids to escape from the cavity of the abdomen was scarcely enough in that direction.

The incision was made to the left of the rectus muscle, but in his next case McDowell made it in the linea alba, between the umbilicus and pubis.

Pause a moment! Think; at the end of almost three-quarters of a century, the operation stands almost where McDowell left it, with one solitary exception, viz., the ends of the ligature surrounding the pedicle are cut short.

Restless human nature, not satisfied, sought other means of treating the pedicle, a review of which is fraught with good instruction. For eleven years the operation remained in the hands of McDowell, and he adhered to ligation of the pedicle, leaving the ends of his ligature hanging out at the lower angle of the wound. In 1820, Chrysmar, of Würtemberg, tied the pedicle in two portions, leaving the ends of the ligature hanging out at the lower angle of the wound. In 1821, Nathan Smith, of New England, tied the pedicle with "strips cut from a kid glove;" he cut the ligature off close to the knots, and dropped the pedicle into the abdominal cavity.

Neither Chrysmar nor Nathan Smith knew anything of McDowell's operations. Were the teachings of Hunter and John Bell working upon other minds, as well as upon the mind of Dr. McDowell? The last named sent to Mr. John Bell, of Edinburgh, an account of his cases. Mr. Bell being then in Italy, his colleague, Mr. Lizars, received the report. It is probable that this record was received in 1818. For six years Mr. Lizars kept it to himself. He attempted ovariotomy four times and succeeded in one case, the patient surviving the operation seventy days. In one case he opened the abdomen by an incision, reaching almost from the ensiform to the pubis, and thrust his hand into an empty belly. He requested every one of his students to put his hand into the abdomen, and finally exclaimed, referring to an army officer present: "Where is the military gentlemen?" and had him make the same manual exploration. Mr. Lizars then closed the wound, *and it healed by first intention.*

Owing to the fact that Mr. Lizars's results were bad, twenty years elapsed before ovariotomy was again attempted in Scotland. In 1845, Dr. Handyside performed it. Another halt of seventeen years occurred, bringing us up to 1862, at which date but one success had been attained in Scotland. In that year Dr. Thomas Keith did his first operation.

Let us now cease the pursuit of Dr. McDowell's operation, as it was reported to Mr. John Bell, which report the latter did not live to see.

Up to the year 1843, I find the records of only eighteen completed ovariotomies in America. In this year, Dr.

Alexander Dunlap, of Springfield, Ohio, and Dr. John L. Atlee, of Lancaster, Pa., did their first cases, the latter removing both ovaries. Eleven years later (1855), Dr. Kimball, of Lowell, began operating. These three are now the only living pioneers of the army. May they live long to enjoy the distinction!

The operations in the United States were already numerous, and the stability of the operation secured. This was before Sir Spencer Wells did his first ovariotomy.

It is estimated by Peaslee that up to the last quarter of 1863, over three hundred ovariotomies had been done in this country. At this date, Dr. Keith was only beginning in Scotland; the operation was performed for the first time in Russia, and was only a year old in Italy. Twelve years after the death of Dr. McDowell, in 1842, Dr. Charles Clay, of Birmingham, England, did the first operation in that country; prior to this time, Jeaffreson, Walne, King, and West had each removed, by abdominal section, parovarian cysts. In 1851, Baker Brown began operating in St. Mary's Hospital, London; his results were not good, and the intense opposition of his colleagues drove him from the hospital; he then founded "The London Surgical Home," where his results compared favorably with those of any other surgeon of his time. *It was mainly due to his action that the practice of performing ovariotomies in large hospitals, where isolation is impossible, ceased.*

From Baker Brown, Nélaton learned the operation by personal observation, and returning to France, related, in a public lecture, how he had seen Brown do five cases, three of them in a single day; and thus through the influence of Brown on Nélaton, the opposition to ovariotomy in France was largely diminished. In 1854, Baker Brown taught Sir Spencer Wells the operation, and in 1857, Sir Spencer did his first operation. In 1864, according to Sir Spencer Wells, the operation was completely established in London, and, we may add with pride, in every country in the civilized world.

But while the surgical world recognized the operation, there was a diversity of opinion with regard to the treatment of the pedicle. From the date of Dr. McDowell's first operation up to 1821, when Dr. Nathan Smith operated, the ends of the ligature were brought out at the lower angle of the wound; Dr. Smith was the first to cut the ends off. For sixteen years afterward no other method was offered. In

1837, Stilling, of Cassel, in the province of Hesse-Nassau, Germany, used the cautery, and suggested stitching the pedicle to the wound.

Nine years barren of new suggestions again elapsed, when in 1846, Dr. Handyside, of Edinburgh, Scotland, carried the ligatures through the cul-de-sac of Douglass into the vagina. In 1848, Stilling treated the pedicle outside of the peritoneal cavity. Two years later, in 1850, this method was inaugurated in London by Mr. E. W. Duffin. The introduction of the extraperitoneal method of treating the pedicle by Stilling, in 1848, began a long and serious conflict which has happily died out with the method. Maisonneuve, of Paris, in 1849, had twisted the entire pedicle in one case, and Martin, of Jena, had stitched the pidicle to the wound. About this time Langenbeck stitched the pedicle to the wound, and covered it with skin from the margin of the incision.

Eight years later, in 1850, Dr. John L. Atlee, of Lancaster, Pa., introduced the écraseur to divide the pedicle. He was imitated by a number of prominent operators, notably by his brother, the late Washington L. Atlee. Sir Spencer Wells, Dr. Keith, Professor Pope, of St. Louis, U. S., and Professor Billroth, of Vienna. This year proved unfortunate for the operation, for during it Mr. Johnathan Hutchinson invented the clamp which perpetuated the extraperitoneal mode of treating the pedicle. In 1860, Sir James Y. Simpson secured the pedicle within the cavity of the abdomen by acupressure needles passed through the abdominal wall. About 1865, Koeberle, of Strasburg, invented his serre-nœud, or wire constrictor, with which he grooved the pedicle prior to applying the ligature.

In 1864, Mr. I. Baker Brown, of London, reverting to Stilling, of Cassel, established the use of the cautery, *a method rejected in London, taken up by Dr. Keith, and now credited through him with the best statistics yet attained by any operator.* In 1868, Masslovsky, a Russian, amputated the pedicle by double flaps, one on each side, and stitched the flaps together. In 1869, Dr. McLeod, of Glasgow, Scotland, by means of two pairs of strong forceps, twisted the pedicle entirely off. During this year, Dr. Peaslee invented a scabbard and knife by means of which the pedicle was secured, the ligature traversing the scabbard. After forty-eight hours the ligature was cut by introducing the knife into the scabbard, when both ligature and scabbard were withdrawn. In 1870, Dr. Thomas Addis Emmett reported eighteen cases in which he had secured the pedicle by means of silver wire.

Up to the present year (1885), every conceivable thing has been done with the pedicle. It has been tied entire; tied in sections; been twisted off; burnt off; crushed off; cut square off; cut off in flaps; left inside; left outside, and been made to slough off. The extraperitoneal method of treating the pedicle is gone. Ths question is now resolved into the merits of the ligature cut short, the Dr. Nathan Smith method, or the clamp cautery, as introduced by Mr. I. Baker Brown, of London, in 1864. If the clamp as devised by Mr. Jonathan Hutchinson was a bad instrument, and according to Mr. Tait, reduced the statistics that Sir Spencer Wells should have attained, it must have similarly affected the results of those who have employed it in the United States. Recently ligation and the cautery have given almost equal results.

The operation of Dr. McDowell, in so far as it relates to the treatment of the pedicle, is, therefore, triumphantly where he placed it, despite the ingenuity of the surgical world, having undergone but a single alteration, namely, Dr. Nathan Smith's improvement of cutting the ligature short. I have not been able to learn anything as to the extent sponges were used by the pioneer operators. When Dr. Keith was about to do his first operation, he had the water to be used boiled the night before, and he made everything scrupulously clean; during the operation he was surrounded by old practitioners.

After removal of the cyst, he thrust a big sponge into the abdomen, and brought it out full of fluid. As he was about to repeat this, one of the doctors seized his arm, and exclaimed, "For God's sake, don't do that again." While he hesitated, the others argued that any fluid left in the body would be a nice protection to the intestines. He closed the wound. Subsequently the patient did badly. He at once opened the wound and let out a pint of dirty fluid, and the patient recovered. From that time he advocated careful sponging after the operation, *and he was the first to insert a flat sponge under the wound while the stitches were being placed.* Koeberle, who also began to operate in 1862, *introduced the compression forceps and drainage, first by short and later by long glass tubes.*

I here show you the Baker Brown cautery clamp, used by Dr. Keith, the compression forceps of Koeberle, *also the* *modification by Sir Spencer Wells*, and the drainage-tubes so much in use by operators in Great Britain.

The technique of McDowell's operation is, probably complete, *and its future will depend on the subject, the place of application, and the care taken to protect the patient from extraneous sources of danger.* It may be compared to a mighty oak, each decade of years having added to its greatness until its far-reaching branches furnish shelter for the thousands of men and women who require abdominal section. Its ramifications are hysterectomy for fibroids, hepatotomy, cholecystotomy, normal ovariotomy, the Hegar-Tait operation for the removal of both ovaries and tubes, nephrectomy, exploratory incisions, gastrotomy, and enterotomy. It still continues to grow, and the task of pointing out the leaves that have been added to its foliage during the last year requires our efforts ere they fall about the roots and contribute themselves to the growth of the parent tree.

Valuable lectures and papers have been given by Dr. Keith, Mr. Lawson Tait, Mr. Savage, Sir Spencer Wells and Mr. Bryant, all in the *British Medical Journal.*

The results of valuable experiments on lower animals have been published by Prof. C. T. Parkes, of Chicago. Many successful cases of the Hegar-Tait operation done by our countrymen, and the surgeons of Great Britain, have been published in various journals.

Mr. Thornton has been successful in gastrotomy for the removal of a large foreign body, and has had seventeen successful cases of nephritic surgery, ten of these being nephrectomy by abdominal section. Drs. Keith and Bantock continue to do supravaginal hysterectomy with unparalleled success, and it is premised that, if their success continues, it will elevate their method of operating beyond the reach of controversy. They both adhere to the extraperitoneal treatment of the stump, while the continentals practice the intraperitoneal method.

The recent visit of Mr. Lawson Tait to the United States, has given a great impetus to the Hegar-Tait operation for the removal of diseased tubes, and for the removal of ovaries and tubes for the cure of fibroids of the uterus.

For the purpose of encouraging the conservative abdominal surgeons, *those who look carefully to the environment of their patients*, I point with great pleasure to the fine statistics of Dr. John Homans, of Boston, and of Dr. Robert Battey, of Georgia, whose early initiation of normal ovariotomy was suggestive eventually of the Hegar-Tait operation which included the tubes.

Ovariotomy and its offshoots comprise almost, if not the entire field of the abdominal surgery. The establishment of the parent operation brought out the others, if not for the first time, it revived and established them after they had been practically abandoned. "The seed was sown by Bell and Hunter, carried by McDowell, and planted in Kentuky;" its first growth was slow, but gathering strength from the passing years, its top has risen high, and its great branches cover a wide space, where unfortunate men and women of every land and clime gather to find relief from suffering and to acquire new leases of life.

The carbolic spray is still a matter of dispute. In Great Britain, Mr. Thornton adheres to it as of old; Drs. Keith and Bantock, and Mr. Tait will have none of it. The latter said to me, "I sold out all my right, title, and interest in Listerism, with my tea-kettle, to Batty."

So far as I know, the best statistics yet obtained in ovariotomy in the United States belong to Dr. Battey, of Georgia, and Dr. John Homans, of Boston, Mass., both of whom operate under the carbolic spray, and in apartments kept especially for abdominal operations. I make special mention of the fact that these gentlemen use the carbolic spray, for the reason that Dr. Emmett says in his last edition, p. 715: "I do not know of any prominent operator in this country who now uses the spray;" evidently an oversight.

I do not use the spray myself, but look upon the entire Lister system, less the spray, as firmly grounded in the surgical mind. Cleanliness and Listerism can never be separated, for "Listerism is the gospel of cleanliness;" without the latter you can not have the former.

The year has wrapped up in its eternal folds one whose name is synonymous with the surgery of women; one whose reputation is immortal, who, in America at least, stood next to McDowell; beloved by his own countrymen, honored by the entire surgical world. No eulogy of mine can increase his fame. I speak of *the great, the good, the pure, the noble, the generous* Marion-Sims. Like McDowell, he possessed a genius for origination, and will share with him the admiration and plaudits of future generations.—*Medical Progress.*

The Treatment of Croup.

THE terms croup and diphtheria have a never-failing interest to the practicing physician, and there are probably no diseases concerning which he is more eager for information than these. It can not be said that the ideas entertained with regard to these conditions, either as to their clinical history or morbid anatomy, are altogether unconfused, and contributions which promise greater definiteness from either aspect are always welcome. We have endeavored to keep our readers informed by noticing, from time to time, important facts, new or old, bearing upon the subject, as adduced in papers and in discussions before societies in this country and abroad, and have now to call attention to a recent valuable paper by Dr. J. Lewis Smith in the *American Journal of the Medical Sciences* for April, 1885, and entitled, "Membranous Croup; Diphtheritic Croup; True Croup."

Dr. Smith applies these terms to any pseudo-membranous laryngitis or laryngotracheitis, from whatever cause. The majority of cases are caused by diphtheria, but others are the result of cold, measles, pertussis, scarlatina, typhoid fever and irritating inhalations; the rate of frequency being in the order named, and in all instances the morbid anatomy, clinical history and required treatment are, according to Dr. Smith, so nearly identical that attempts to differentiate the disease as due to diphtheria or other cause, have been futile and unsatisfactory in the districts where diphtheria occurs.

It will be seen that Dr. Smith does not ignore a croup due to cold, but says that the anatomical characters, clinical history and required treatment are the same, and that in New York physicians scarcely recognize any other form of membranous croup than that caused by diphtheria. We do not think that this is exactly true of Philadelphia, for although it is a fact that the morbid anatomy is identical, and, it may be, the treatment demanded, it is generally recognized in Philadelphia that the adynamia in diphtheritic croup is much greater than in croup due to cold, and that the results of treatment, and especially of operative treatment, are correspondingly less favorable. At the same time we think Dr. Smith's classification a good one, and hope it may generally be adopted.

The differences in the false membrane in croup from cold and in diphtheria, are differences solely due to peculiarities in the mucous membrane on which it happens to be deposited. Thus there are no differences in that of the tracheal membrane from either cause, but the membrane formed in the fauces in diphtheria differs from that of croup from the same cause, as well as from that in croup from cold, in being more of the nature of a coagulation-necrosis, the coagulable material infiltrating the squamous cells, which lie simultaneously with the infiltration, while in the larynx the membrane lies more upon the surface of the columnar cells.

With regard to treatment, which, for the reason given, he makes the same for all forms of croup, Dr. Smith evidently favors early tracheotomy, that is, early after membranous laryngeal stenosis is established. He admits, however, that prompt measures, which, if deferred to a time in which such stenosis is established, are useless, may be of service in averting a degree of laryngitis indicated by simple hoarseness, which, if continued, might eventuate in irremediable obstruction. Such are keeping the air of the apartment moist by the croup kettle or by pans, over the fire, of hot water, to each of which is added a lump of lime, or better, by steam atomizers. As an inhalation, he deems lime water, slightly turbid, and containing about one and a half per cent. of liquor potassæ, as efficient and unirritating a solvent for false membrane as any of the alkaline mixtures. It also renders thinner and more easily expelled the mucopus, which collects in large quantities in the bronchial tubes, and is expectorated with difficulty on account of its viscidity.

Since its first introduction, Dr. Smith has also used with most satisfactory results, for dissolving pseudo-membranes, trypsin, and especially penciling the fauces every half hour with a solution made by adding to six teaspoonfuls of water a teaspoonful of a mixture of one drachm of Fairchild's extract of pancreas and three drachms of sodium bicarbonate. A solution of trypsin prepared by Fairchild, and used with the atomizer, promises good results.

With regard to the calomel treatment, Dr. Smith admits that it probably exerts a salutary action either on the exudative process or the pseudo-membrane, without being able to state precisely how it acts. In the ordinary form of diphtheria he would not advise the use of calomel, or would limit its employment to one or two doses of six to ten grains in the commencement of the disease and in robust cases, but in the treatment of croup he would prescribe it in larger doses and for a longer time; but he does not order it after the first or second day, preferring other remedial measures which are efficient and less likely to produce injurious results. Our readers will be interested to know that a case of recovery is reported in which a child 28 months old took 20 grains of calomel dry on the tongue every two hours until the third day, when 720 grains had been taken; another of three and a half years in which 170 were administered, and a third, 130 grains in ten-grain doses after a first dose of twenty grains.

Of the emetics, Dr. Smith considers sulphate of copper one of the best, in doses of two grains repeated, but that in ordinary cases probably the best is turpeth mineral—the yellow sulphate of mercury—in doses of two or three grains of the powder.

The value of the germicides Dr. Smith believes to be still *sub judice*, but gives their use, more particularly corrosive sublimate, due consideration, and refers to several cases in which the latter agent seemed to be followed by happy results. The well-known tolerance of children for the drug explains why it is that a child aged nine years took $\frac{1}{40}$ of a grain every one and a half hours, and in one day nearly half a grain, till the fifth day, when a little more than two grains had been taken. Similar cases are narrated, in one of which a child two years and five months old took $\frac{1}{48}$ of a grain every second hour for three days. Dr. Smith recommends from the $\frac{1}{60}$ gr. to $\frac{1}{48}$ gr. every hour or two, but says, also, that it does not seem necessary or prudent, in ordinary cases, to continue the use of the bichloride more than three or four days in large and frequent doses.

Supporting measures are also required, particularly when the croup is diphtheritic in origin; and among these the tinctures of the chloride of iron, potassium chlorate, quinine, brandy, or other forms of alcohol, have their place. All these measures, however, especially if not promptly adopted, are inadequate in a large majority of cases, and surgical interference must be had. The indications for it are, according to Dr. Smith, a gradual increase of the stenosis and consequent dyspnœa, notwithstanding constant and judicious use of remedial agents, and a manifest suffering from want of air, as shown by restlessness and the expression of suffering in the patient's features, with or without lividity of the surface. When these symptoms appear, the duty of the physician to relieve suffering should prompt to operative treatment, even if the important object of saving life be disregarded.

The two operative measures employed are tubage and tracheotomy, with regard to which we may have something to say in a future issue.

If, now, we compare Dr. Smith's treatment with that of Dr. Jacobi, as published in his article on diphtheria in the volume of the *American System of Medicine* just issued, we find first with regard to steam, which Dr. Smith would appear to recommend for all cases of croup, that Jacobi says it can only be expected to increase the secretion from the mucous membrane, and thereby throw off the subjacent membrane, when there is a natural tendency to it, that is, where there are a great many muciparous follicles under a columnar or ciliated epithelium. This is the condition in the pharynx, but in only a small portion of the larynx; in the trachea and bronchi, but not on the vocal cords. Again, steam in an overheated room, and without pure air, is liable to be as injurious as steam in pure air is beneficial to many. Jacobi has repeatedly seen children with croup become less cyanotic after their removal from an atmosphere of vapor, and he can readily see that pure atmospheric air would be more agreeable and wholesome to a child with stenosis of the larynx than an atmosphere laden with steam.

Water, according to Jacobi, is serviceable in various ways. Taken in large quantities, it not only causes copious perspiration, but the same effect is produced on the mucous membrane. Cold and ice applications are not mentioned by Smith, and there is no single measure which we regard so useful. But, according to Jacobi, these, too, have their limit. They are not well borne by very young infants, and the beginning of recovery contraindicates their use, as does also the absence of fever. In such cases, while unlimited internal stimulation is required, the hot bath or hot pack, and hot injections into the bowel will be found beneficial.

Jacobi is not enthusiastic over the solvents for membrane, including lime water, glycerine, lactic acid, pepsin, papayotin, chinolin, and pilocarpine, doubting whether there are sufficient time and opportunity to produce a curative effect. Trypsin had not been introduced when he wrote the article.

Turpentine inhalations, recommended by Edel, are not referred to by Dr. Smith. Jacobi favors their use, floating a tablespoonful of the oil on water, which is kept boiling on a stove or over an alcohol lamp, care being taken that none is spilled on the flame. Ammonium chloride, for its softening and liquefying effect, may be used internally or burned over alcohol or gas. Calomel, for its constitutional rather than its abortive effects, is recommended by Jacobi, 8 to 12 grains in divided doses, and for the same purpose the oleate of mercury rather than the blue ointment, by inunction.

Jacobi's views as to the mode of administration of the chloride of iron are such that, if they are correct, an important modification of the more usual plan will be necessary. He has not the least doubt that the failure of the remedy may be attributed, in most cases, to the fact that the doses are too small and too seldom administered. Accordingly, he would give 5 to 15 drops, properly diluted, every fifteen minutes or half an hour. Gargles containing this substance are of no service, because they do not remain sufficiently long in contact with the parts. Its direct application is needlessly irritating, while its frequent administration, in the manner described, secures sufficient local action, for which, as well as for its general effect, it is administered.—*Philadelphia Medical News.*

St. Louis Medical Society.

PARALYSIS FROM HÆMORRHAGE IN THE SPINAL CANAL—DEATH DUE TO DECUPITUS—PATHOLOGICAL SPECIMEN.

DR. LUTZ. This is the spinal cord taken from a man 47 years old, who, by a fall, became paralyzed in both the upper and lower extremities. I saw the patient 18 days after the fall. I do not know the early history. There was complete paralysis of motion in both the arms and legs, but there was no paralysis of sensation. The bladder and bowels were under perfect control, there was a swelling about the size of a silver dollar in the region of the sacrum. In making a very thorough examination of the spinal column I found no appearance of injury, neither was there any deviation from the normal conformation of the spinal column, nor were there evidences of injury to the back except decubitus; and the only symptom aside from the paralysis of which the patient complained was sleeplessness. Temperature and pulse normal. It is quite customary to diagnose concussion of the spine after injury, whenever we are at a loss to account satisfactorily for the paralysis, by either a fracture of the spinal column or dislocation. I am free to say I did not have sufficient evidence before me to make a diagnosis of concussion of the spine, which we all know is a question that is a very much mooted one. Extensive works have been written on concussion of the spine, especially as associated with railroad injuries. An entire volume has been devoted to it by Mr. Erichsen, an additional volume by Mr. Gage, a railroad surgeon of England, who has taken it upon himself to contradict many of the statements of Mr. Erichsen; and, on the other hand, they hold that such a condition as concussion of the spine rarely if ever occurs. The treatment in this case consisted, in the first place, in an endeavor to prevent the extension of the decubitus, for which I put the patient into quite an elaborate arrangement whereby he was elevated, a kind of an invalid bed, and then I administered iodide of potassium in addition to tonics, such as quinine and iron. After the lapse of about three weeks I administered strychnia and the tincture of nux vomica. In spite of every effort, as far as medicinal treatment was concerned, the patient died. The autopsy showed no kind of lesion or injury of the viscera. In the spinal column itself I found neither dislocation nor any evidence of a fracture of any portion of the spinal column. In the spinal cord itself there was no hemorrhage, but between the spinal cord and the bony walls there were two distinct hæmorrhages. The first extended from the last cervical to the 4th dorsal vertebra, and the second from the last dorsal vertebra to the *cauda equina*; both clots were situated posteriorly. The inferior hæmorrhage was more extensive than the upper one, and it pressed so much upon the cord itself as to produce a very appreciable softening of the entire cord, besides flattening it antero-posteriorly. When I began to administer strychnia, partial motion reappeared in the lower extremities; the upper extremities he was never able to move. The patient died, in my opinion, of decubitus. The difficulty is in making a diagnosis in a case of this kind. If those are to be believed who have written on these subjects, it is very often found that although the spinal column presents no kind of lesion, or any evidences of dislocation or fracture of any portion of the vertebral column, yet the pressure upon the cord in some portions has been so great as to produce paralysis, and the injury has been called concussion of the spine. In cases of this kind the possibilities of recovery are by no means small. Many cases of hæmorrhagic effusions are diagnosed as concussion of the spine or spinal cord on account of the identity of the symptoms. I believe the profession holds that there is such a condition as concussion of the spine independent of any appreciable lesion either to the spinal column or to the spinal cord. I dare say those cases are exceedingly rare and it requires a man of great diagnostic acumen, which can only be acquired by a large experience in injuries of this kind, to determine. This specimen demonstrates that a diagnosis of concussion of the spine ought to be made with very great care.

Dr. Dean. I ask Dr. Lutz how in the absence of concussion in that part of the spine a hæmorrhage could have occurred?

Dr. Lutz. I do not want to be understood as saying that there was no concussion. I wanted to convey the impression that a diagnosis of concussion of the spine in this case would have been erroneous. We ordinary understand by concussion of the spine, strictly speaking, a condition of the spine in which there is functional disturbance without appreciable anatomical lesion. If a man were thrown out of his carriage and became unconscious at once and died in that condition, and a post mortem revealed no fracture nor laceration nor effusion or other injury about the brain or spinal column, we would be inclined to say it was a case of concussion of the spine; but if that patient gained consciousness, and died subsequently, and we made a post-mortem and found a hæmorrhagic effusion of the dura-mater of the brain, we certainly would not attribute the symptoms of the case to a simple concussion of the spine. Cases of true concussion of the spine, pure and simple, are of very rare occurrence. During a discussion before the Medico-Legal Society of New York, it was held by some prominent neurologists that there are cases of concussion pure and simple, although they are exceptional. In a majority of these instances, which we call concussion of the spine, the symptoms show that there has been appreciable lesion. It is a subject upon which there exists a great diversity of opinion and confusion among the profession. Mr. Erichsen, in the cases which he reports, shows conclusively that quite a number of pathological conditions of the spine and spinal column are covered by the term concussion of the spine. There has, of late years, arisen a particular kind of disease which is called the railroad spine; all these are embraced, ordinarily, under the term concussion of the spine.

Dr. Ed. Borck pointed out the possibility that the man was suddenly paralyzed and then fell.

Dr. Lutz said that from the accounts of the witnesses of the accident it was evident that the paralysis was the consequence of the fall.

Dr. Dean. I rise to criticise the statement that there was no perceptible lesion of the spinal column, and yet Dr. Lutz says there was a lesion of the vessels. It seems to me that there must have been a concussion of the spinal column. I now understand the doctor has excluded that in his remarks.

Dr. A. Green thought it very strange that there was paralysis of motion, with perfect sensation. The portion of the clot posteriorly would be more likely to produce paralysis of sensation than of motion. He mentioned as a possibility that the hæmorrhagic effusion was merely caused by his lying on his side. By hypostasis. The case was rather a strange one. It might be inferred from the symptoms that the paralysis of motion occurred not from the effusion of the blood, but by some injury to the front portion of the body. If decubitus had never taken place he might have regained his motion. Possibly there was only a simple peripheral paralysis of the nerves.

Dr. Lutz. I would like to ask Dr. Green, if he was called upon as an expert in a case, and made a post-mortem, in which there was an apparent injury to the spinal cord, and found a tangible lesion and a hæmorrhagic effusion, whether he would not be inclined to attribute the condition of the spinal cord and the disturbance of its functions, to the effusion, rather than to an undemonstrable condition called concussion of the spine?

Dr. A. Green. I understand the blood was outside of the dura mater. If the hæmorrhagic effusion had been inside of the membranes, I might have thought so; or if it had been between the arachnoid and the pia mater or between the arachnoid and the dura mater; but he says there was not a particle of blood between the pia mater and the arachnoid or the dura mater and the arachnoid and, therefore, I think it is rather a strange case.

Dr. Ohmann-Dumesnil. Dr. Green's position is untenable. If the paralysis was caused by the position of the person after he fell, the blood would have been found in the lower portion of the back, which would have been owing to the hypostatic condition of the clot, otherwise it would have been more diffused.

Dr. A. Green. The blood gravitates to the weakest place, and it is clotted there as it was in this case. The blood was outside of the dura mater and consequently the paralysis must have been caused by the effusion of the blood. Somehow the pressure was rather upon the posterior part of the cord than upon the anterior; but the anterior tract was paralyzed and the posterior was not. The blood was found outside the dura mater and there was none found between the arachnoid and the dura mater or between the arachnoid and the pia mater; consequently, the paralysis was not caused by the effusion of the blood.—*St. Louis Med. & Sur. Jour.*

Microscopy.

WE are indebted for the following selections to the *St. Louis Medical and Surgical Journal*, which has a Department of Microscopy, very ably edited by Dr. Frank L. James.

MICROPHYTES OF THE NORMAL HUMAN SKIN.—The tendency of a certain class of investigators to elevate into pathogenic importance every form of microphyte which is found by chance to predominate in any particular pathological condition, especially in diseases of the skin, has recently received at the hands of J. Bizzozero, of Turin, a very decided set-back. In a communication addressed to Virchow's *Archiven* (Vol. xcviii, p. 441), this author states that he found in the normal debris of the skin—dead epithelial cells-glandular secretions, etc.—a large number of those microphytes which were hitherto charged with being the pathogenic cause of numerous maladies of the skin. While existing on every portion of the surface, these microphytes were most plentiful in the parts covered with hair, around the penis and scrotum, under the armpits, and between the toes and in the deeper folds of the skin. He divides those found on the surface into three classes, viz: (1) spherical cells (*saccharomyces sphaericus*) without mycelial threads; (2) oval cells (*sacch. ovalis*); and (3) micrococci and bacteria. None of these, the author declares, have the slightest pathogenic importance, although identified as the hitherto suspected cause of various diseases. On this point the author quotes the literature of the day very fully. In the doughy masses of desquamated and semi-macerated epithelium taken from between the toes, Bizzozero found vast quantities of bacteria and micrococci, which were most numerous in the outer portions. In the deeper parts of the masses were found the higher forms of microphytes. Among them predominated long, pale, flexible threads which wound themselves into complicated knots, and lay in little cell-like hollows between the masses of dead epithelial cells. These organisms, which the author calls *leptothrix epidermidis*, were found not only between the toes, but in the preputial smegma and in the portions of the scrotal folds exposed to the chafing of the thighs. No pathogenic importance was found to attach to these organisms.

The Cornea.—One of the most remarkable effects of osmic acid is illustrated by its action on the cornea of a frog. If after carefully dissecting the cornea, we place it in the moist cell or chamber, with a few drops of aqueous humor, and examine it with the microscope, we see scarcely anything of its structure. But if we wait a half hour, an hour, or even a little longer, the fixed cellules, which were at first but indistinctly seen, become visible, and we may follow every detail with admirable clearness. All histologists who have studied the corneal structure under these conditions, have recognized the facts as stated, but none have as yet been able to give a valid explanation of them. In order that this phenomenon be produced, and that the cornea shall show its fixed cells and the network which they produce, it is indispensable that it be placed in the moist chamber and furnished with fluid enough to keep the atmosphere saturated. These conditions satisfied, the phenomenon never fails to appear at the end of from a quarter to a half hour. If then the cornea is allowed to become dry, the cellules disappear, and their contour, but a few moments ago so distinct and clear, is lost in the fundamental substance. These phenomena are essentially physical. A certain quantity of water is necessary to bring into view the cellules and the cellular net. How is it to be done? Under the influence of the fluid, the cornea sustains a very appreciable increment in size. It swells, as may be ascertained by microscopic examination. The fundamental interfibrillary substance absorbs water; it swells, and meanwhile the cellules, which have a vital resistance of their own, an organic independence in a much higher degree (than the inter-fibrillary substance), resist imbibation. It is then really very simple, after all, this problem as to why the absorption of water brings the cells into view. In the normal cornea, the cellules and the interfibrillary substance have the same index of refraction. It is this which causes the definition of the cells to disappear and which gives the cornea its great transparency. The imbibation of water by the one substance and its refusal by the other cause a change or difference in their indices of refraction, and consequently enables their boundaries to be seen.

There is then between the cornea which has remained a little while in the moist chamber, and the living cornea, a very slight difference as to the imbibation of fluids by the interfibrillary substance. This difference can be fixed exactly by means of osmic acid. If a living, non-modified cornea be subjected to the vapors of osmic acid, there is no change of the refractive indices. If, on the contrary, a modified cornea, one that has first been subjected to the influence of moisture, be afterward subjected to the vapors of osmic acid, a permanent difference of refractive index will be established. In other words, it will be fixed by the acid, and henceforth the cells and their reticulation will remain visible. We see then that in osmic acid we have a fixing agent worthy of all confidence—a fact I will illustrate by another striking example. This time, by fixing—not a cellular element, but a very delicate substance which may be considered as a product of intracellular or intraprotoplasmic secretion. I mean that very curious substance,

ELEIDINE,

which infiltrates a certain stage of the mucous corpuscles of Malpigi, called the *stratum granulosum*. It is also found, in the form of drops, in the epidermis of embryos, in the nails and hoofs of the solipedes and ruminants. If you make a section of the exterior tegument of an embryo, after hardening in alcohol, and stain it feebly with carmine or picrocarmine, you will see the granulations and drops of eleidine take on an intensely red coloration. If now acetic acid be added, even in exceedingly minute quantities, the drops of eleidine, so red and brilliant, will swell up and disappear! From this it may be seen that acetic acid has a very powerful effect on this curious substance; but osmic acid has the power of arresting this action—an exposure to its vapor even sufficing. If the object be the first exposed to the actions of osmic acid, no amount of acetic acid afterward applied will cause the eleidine to swell or disappear, so powerful is the fixative principle of osmic acid on a substance so delicate! These experiences have taught me to employ it in studying the form of the

HEPATIC CELLULE.

In choosing an animal upon which to carry out my histological work, after trying quite a number of different kinds of vertebrates, I settled at length upon the domestic rat as the best, and for these reasons: It is a small animal, easily obtained in almost any numbers, and sacrificed almost as easily as frogs. The hepatic cellules of the rat are extremely neat and clear, and it is the rarest of things to find them charged with the fatty granulations sufficient to impede observation. Let us then take a rat, an ordinary rat, *mus decumanus*, and cut his head off. Taking off a bit of his liver, say a tenth of an inch in diameter, we put it into one or two cubic centimeters (from 15 minims to a half drachm) of a one *per cent.* solution of osmic acid and leave it there from 12 to 24 hours. After washing it thoroughly in distilled water to get rid of the excess of osmic acid, we put it on a glass slip, and covering it with a drop of water, proceed to disintegrate it by tearing it with needles. Since the elements have been fixed, this process is a comparatively easy one, and by this means we obtain a vast number of hepatic cells beautifully isolated, which can be mounted and examined at leisure.

DEATH FROM CHICKEN-POX.—Dr. I. V. Wichmann relates in the *Nordiskt Medicinskt Arkiv.*, Vol. 16, No. 3, 1884, the following case: A well-nourished infant, eight months old, was seized, nineteen days after exposure to varicella, with a vesicular eruption limited to the neck and left scapular region. The appearance of the eruption was preceded for a few days by malaise. The mucous surfaces were unaffected. The child was feverish and restless, and after eight or nine days' illness passed into a state of collapse and died. There were no signs of meningitis or of disease of the thoracic or abdominal organs. The autopsy gave negative results, with the exception of a little grayish discoloration of the cortical substance of the kidneys. There could be no doubt of the diagnosis, as there were at the time no cases of smallpox in Copenhagen, and the disease from which the child died was not communicated to any of its adult attendants.

Gleanings.

HOT WATER AND HÆMORRHOIDS.—Dr. W. H. Bennett, of Brooklyn, N. Y., writes to the *Medical Record*: "Of late it has been the rage to drink hot water before breakfast by the pint, and even by the quart, or more. The list of diseases which such a treatment will cure is claimed by those who enthusiastically practice it, to be unusually long. I am afraid some one among the profession have been deceived in this matter, as well as many of the laity, and the eyes of both have been closed to the harm that might result from such treatment *long continued.* In certain diseases of the stomach, and possibly of the first few feet of the upper bowel, copious draughts of hot water may do great good, as in gastric ulcer and gastric catarrh. But on the large intestine, especially on the rectum, the effect is not salutary, for the water can not reach these latter parts *hot,* and its ultimate action is to debilitate the muscles and to relax the mucous membrane. Several cases of hæmorrhoids and prolapse of the rectum have come under my notice, which first appeared after a few weeks' use of hot water internally. On imbibing hot water in large quantities the general circulation is perceptibly stimulated, but it soon becomes sluggish in those parts not brought into immediate contact with the fluid, and the tissues become œdematous and overstretched, and then relaxed and flabby."

THE ACTION OF WARM WATER UPON THE GRAVID UTERUS—Auvard ("Bull. gén. de thérap.") reports the result of a number of observations made for the purpose of determining whether warm vaginal injections could be used with safety during pregnancy, and whether they had any influence upon the course of labor. He decides that water at a temperature of 48° C. (=118·4° F.) does not cause uterine contractions, if injected slowly and gently into the vagina. Kiwisch's results with injections of warm water for the purpose of inducing premature labor must, therefore, the author thinks, have been due either to the violence of the treatment, or to the fact that other means were employed in addition. If these injections are practiced every half hour during the first stage of labor, the os dilates rapidly and with less pain than when they are not used.

PANCREATIN IN DIPHTHERIA.—Dr. H. D. Chapin, of New York, found that trypsin in warm solution digested the membrane in fifteen hours when applied continuously in the form of a spray. Dr. J. Lewis Smith asserts that he "has never seen pseudo-membranes disappear more rapidly from the fauces than when the following is used: ℞.—Extracti pancreatis ʒ 1, sodii bi-carbonatis ʒ 2 M, add one heaped teaspoonful to six teaspoonfuls of tepid water, and apply by a large camel's hair pencil every half hour to the fauces.

THE ELASTIC BANDAGE IN THE TREATMENT OF INCARCERATED HERNIA.—Jakowlew ("Wratsch;" "Ctrlbl. f. Chir.") speaks highly of compression by means of the elastic bandage in cases in which taxis has failed and the surgeon does not feel justified in operating. The use of elastic compression should not be continued longer than twelve hours. Five successful cases are reported out of six in which urgent symptoms were present and taxis had been applied in vain.

THE ACTION OF CAFFEINE ON THE CONJUNCTIVA.—Like several other experimenters, Argyll Robertson (*Brit. Med. Jour.*), having noticed the similarity in the chemical composition of caffeine and cocaine, has been led to try the effect of the former on the conjunctiva. After the instillation of a few drops of a one-to-six solution, dilatation of the pupil and slight injection of the conjunctiva were the only effects observed; in no instance was there any anæsthesia.

SOLIDIFIED CREOSOTE.—In its application to carious teeth, creosote is often inconvenient in consequence of its fluidity, producing ill-effects upon the mucous membrane of the mouth. This may be obviated by giving to it a gelatinous solidity by adding ten parts of collodion to fifteen of creosote. This, besides being more manageable than liquid creosote, also closes up the orifice in the tooth, preventing the accession of air to the dental nerve.—*Progrès Medicale.*

COPPER IN OBSTETRICS.—Solutions of sulphate of copper (1 to 100) are recommended in obstetrics as an antiseptic (it being antifermentative in a sol. of 1 to 1,082—*Miquel, Med. Rec., p.* 70.), as a hæmostatic equal to the perchloride of iron, and as a local stimulant in suppurating wounds. The solution may be used at a temperature of 100° F. as intra-vaginal or intra-uterine injection several times daily with perfect safety.—*Dr Charpentier, of Paris, in Medical Record.*

Book Notices

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS. Edited by Wiliam Pepper, M.D., LL. D., Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, assisted by Louis Starr, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume II., General Diseases (Continued) and Diseases of the Digestive System. Large 8vo. Pp. 1312. Philadelphia: Lea Brothers & Co. Cincinnati: H. Stacy.

In the February issue of the MEDICAL NEWS we noticed the first volume of this truly magnificent work, the product exclusively of the learning, observation and experience of American physicians. The second volume has now made its appearance, showing that the publishers are striving to fulfill their promises as to time in the appearance of the different volumes.

In the second volume the treatment of General Diseases, began in the first, is continued and completed, as rheumatism, gout, scurvy, scrofula, hereditary syphilis, etc. Beginning on page 321, Diseases of the Digestive System are taken up and occupy the rest of the volume. Dr. J. Solis Cohen commences the consideration of these affections by articles on Diseases of the Mouth and Tongue, Diseases of the Tonsils; Diseases of the Pharynx; Diseases of the Esophagus. Dr. James T. Whittaker, of Cincinnati, has contributed the articles upon Dysentery, Typhlitis, Perityphilitis, and Paratyphlitis, Intestinal Ulcer, and Hemorrhage of the Bowels. Other contributors to this volume are Dr. S. G. Armor, of Brooklyn; S. C. Busey, of Washington; Alonzo Clark, of New York; W. H. Draper, of New York; A. Jacobi, of New York, Joseph Leidy, of Philadelphia; J. Lewis Smith, of New York; Wm. H. Welch, of Johns Hopkins University, Baltimore, and quite a number of other distinguished gentlemen.

So large and comprehensive as is this work, each one of the different diseases having been treated by a writer generally acknowledged to be especially qualified to perform the work; so practical in its scope, and setting forth American medicine as it is actually taught and practiced by its best representatives in America, we have no doubt it will be eagerly sought for by every physician of intelligence in this country. This is the first work of the kind—an American practice exclusively by Americans—and, after there has been time to introduce it, we would be nearly as much surprised not to find it in the library of a regular physician of of this country, as not to find a Bible among his family books.

PERILS OF AMERICAN WOMEN; OR, A DOCTOR'S TALK WITH MAIDEN, WIFE AND MOTHER. By G. L. Austin, M.D. With a Recommendatory Letter from Mrs. Mary A. Livermore. 16mo. Pp. 240. Boston: Lee & Shepard. Cincinnati: R. Clarke & Co.

The author of this work states in the preface that, in preparing this work, he has endeavored to keep constantly before his mind the well-known maxim of Aristotle, "To say what should be said, to say only what should be said, and to say it as it should be said." We think, on examining the work, it would have been better for him not to have said anything at all; for we feel sure that this product of his pen is better adapted to gratify a prurient curiosity than to afford useful information. If he himself had not been conscious that there was a great deal of nastiness in the book, mixed in with some instruction, more or less valuable, he would not have had printed as part of the title page, "With a Recommendatory Letter from Mrs. Mary A. Livermore." At the best, Mrs. Livermore is no more a competent judge of the merits of a publication of any kind—whether it concerns women or is devoted to another subject—than any intelligent woman. She is not a physician, nor possesses, as we are aware, any special information in regard to her sex that would tend to give her opinion more value than that of others. Mrs. Livermore has a widespread reputation as an advocate of "women's rights," and we have always been disposed to hold her in esteem. We, therefore, regret to find a letter of hers accompanying this book, highly recommending it. As evidence that we do not unjustly disparage the work, we would copy a paragraph here and there from it, but they are too nasty.

If it was the sole object of the author to furnish ladies with instruction upon gynecological subjects, it would be an easy matter to do so by means of a work written in nontechnical language. We have in our mind several small works upon gynecology, designed for advanced medical students, that, with some remodeling in the way of stripping them of their technical features, would be a thousand times more valuable in imparting useful knowledge to an intelligent woman in regard to her sexual organs and their diseases; and while dealing in facts of importance, there would be nothing to offend modesty, for nothing would be met with that would be impure. While, of course, a medical work is not generally selected as a suitable volume for the parlor table, yet no one would feel ashamed if found reading one; but we are confident that there is no lady who, if induced to purchase a copy of Dr. Austin's book, through Mrs. Livermore's recommendation, for maidens, wives and mothers, would not keep it under lock and key, after learning the character of it, when not engaged in reading it. But a work that has only useful information to recommend it would probably not be in great demand. Prurient features will make it popular.

MINOR SURGICAL GYNECOLOGY. A Treatise of Uterine Diagnosis and the Lesser Technicalities of Gynecological Practice, including General Rules for Gynecological Operations, and the Operation for Lacerated Cervix and Perineum, and Prolapsus of the Uterus and Vagina, for the Use of the Advanced Student and General Practitioner. By Paul F. Mundé, M.D., Professor of Gynecology at the New York Polyclinic and at Dartmouth College, etc. Second Edition, Revised and Enlarged. With 321 Illustrations. 8vo. Pp. 552. New York: William Wood & Co. Cincinnati: Wood's Agency.

The work before us appeared in Wood's Library in 1880. The favorable reception which it has received has induced the author to give it a thorough revision, and to add to it not only numerous interpolations and emendations, but also a new part, containing the rules governing gynecological operations in general, and a minute description of the operations for lacerations of the cervix and perineum and prolapsus of the uterus and vagina. It very fully sets forth the gynecological practice of to-day.

The work is divided in three Parts. Part I. is devoted to Gynecological Examinations, as verbal examinations, positions for examinations, examination couches, examinations with and without instruments, etc. In Part II. are considered

Minor Gynecological Manipulations and Applications, as catheterization, dilatation of the urethra, tamponade of the vagina, applications to the endometrium, dilatation of the uterus, etc. Part III. treats of Gynecological Operations which are of the major kind, as removal of ovarian tumors, operation for laceration of the cervix uteri, and lacerated perineum, operation for rectocele, cystocele, prolapsus of the uterus and vagina, etc.

The descriptions are all in clear, plain language, and afford as full information as can be obtained by descriptions. Advanced medical students and practitioners will find the work a very valuable one indeed.

A Practical Treatise on Nasal Catarrh and Allied Diseases. By Beverly Robinson, A.M., M.D. (Paris), Clinical Professor of Medicine at the Bellevue Hospital Medical College, etc. Second edition. Revised and enlarged. With 152 wood engravings. 8vo. Pp. 276. New York: William Wood & Co.

Dr. Robinson treats of diseases of the nose in a very clear and practical manner. Nasal affections are a class of ailments in which the general practitioner is usually but little interested, and yet they are important, for if they are generally not dangerous they frequently produce a great deal of annoyance; so much so sometimes as to make one's life miserable.

The many cuts will be found of great assistance in giving the reader a correct idea of the kind of instruments used in operating and of the methods necessary to be observed in operating.

Though a small work, it is so comprehensive and complete that it will repay any physician procuring it and studying it. The results of the intelligent treatment that he would be able to employ in his very first case thereafter would well repay him.

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Origin of Germ Theory of Disease.—A claim has been advanced in favor of Athanasius Kircher in connection with the origin of the germ theory of disease. In his work on "The Plague," published in Rome in 1658, he attributes the origin of epidemic diseases to animalculæ (germs?), and maintains that each kind of putrefaction possesses a peculiar virus which produces a definite kind of illness.

Editorial.

A Suit for Alleged Malpractice.—Dr. E. Williams, the eminent oculist of Cincinnati, and Drs. Ayers and Sattler, associated with him in the practice of his specialty, have very recently been sued in the Superior Court of Cincinnati for alleged malpractice. The manner in which the suit terminated—in the disagreement of the jury—was a surprise to every person, proving conclusively, as it did, that a jury in this country can not be relied upon to bring in a verdict in accordance with the law and the testimony; for the jury, in this case, reported no verdict at all, although all the law and all the testimony were on one side—the side of the defendants. During the whole trial, we do not think that there was a single fact, in the way of testimony, on the part of the plaintiff, that was favorable toward a verdict on that side; while, on the side of the defendants, the testimony was overwhelmingly favorable—not a fact being presented by a witness, the plaintiff not even accepted, that did not weigh in their favor. One-sided as the trial was, however, in that all the law and all the testimony was altogether one-sided, and none whatever on the other, yet the jury failed to find a verdict for the side that had all the law and the testimony.

We have not space to give anything like a detailed account of the case, nor is it necessary. We will, therefore, only mention a few leading facts. A youth, aged sixteen at the time of the accident, while engaged in a machine shop in Cincinnati, was struck in the left eye by a flying chip of iron. On presenting himself at the office of Drs. Williams, Ayers and Sattler, an hour and a half after, an incised wound was found on the lower eyelid, at the junction of the inner and middle third, some distance below the margin of the lid. The wound was evidently made by a large foreign body, with a sharp edge, moving with considerable velocity. Intense congestion had already set in. Corresponding to the wound in the lid was a wound in the sclerotic, at first, owing to the congestion and swelling, made out with difficulty; later, distinctly visible. The wound was far back near the equator and behind the ciliary body; the anterior chamber contained some blood; the iris was tremulous from a partial dislocation of the lens. No examination of the interior of the eye with the ophthalmoscope was possible, owing to hemorrhage into the vitreous. Vision was reduced to mere perception of light—tension was reduced to —3.

At the time a stitch was put in the wound of the lid. Cold applications were directed to be made for some days, and atropine was employed, the inflammatory symptoms subsiding.

The eye being regarded as lost, and there being no doubt of the presence of the foreign body within the eyeball, to ward off sympathetic trouble in the other eye, which might ruin it and lead to total blindness of the boy, the parents were advised to permit its removal. This they refused.

The boy visited the office of Dr. Williams and associates for about six weeks, and then began the round of the various oculists in the city and the dispensaries, which he kept up for over two years, when he came under the care of Dr. Tangeman. Dr. T., finding a point of tenderness in the ciliary region—downward and inward—about 3 to 4 mm. from the sclero-corneal junction, which convinced him of the presence of a foreign body—the patient previously having deceived him in stating to him that Dr. Ayers and the other oculists had declared that there was no foreign body in the eye, having rebounded on striking it—he made an attempt to extract it without success. He then emphatically advised enucleation, sympathetic irritation having begun, and at the same time stating that he would have no further connection with the case if it was refused. The patient without answering left the office, and returned in a few days with probably sympathetic inflammation under way. Enucleation was now made, with at first apparent success in checking the sympathetic trouble. The benefit, however, was only temporary, consent to the operation having been delayed too long. A plastic irido-choroiditis set up and the eye was hopelessly lost, and the boy left in total darkness.

The enucleated eyeball was opened and the foreign body found. It was encapsulated and measured seven thirty-seconds of an inch in length, six thirty-seconds of an inch in width, thin and scale-like, weighing three-fifths of a grain.

Suit was brought against Drs. Williams, Ayers and Sattler, the physicians who first saw the case and who had treated the boy for a short time only, placing the damage at $20,000. Nearly every physician in Cincinnati who made a specialty of diseases of the eye, testified in the case. On reading the evidence of the different professional witnesses —nearly every one of them having seen the case before the suit was brought, having been consulted by the patient while making his round among the oculists from the time of the accident—we find the most complete unanimity in their testimony. Both regular and homeopathic physicians stated that the only remedy to have prevented the total blindness of the boy was the removal of the uninjured eye. All who had been called upon by the patient had emphatically advised enucleation, but consent to perform the operation was refused. Dr. McDermott, of the Pulte Homeopathic College, testified that he had presented the case to his students as a lamentable example of the danger of delay and neglect in these cases. All agreed that the case was not one in which removal of the foreign body could have been effected. Dr. Frank Caldwell testified that he remembered the case distinctly when the patient applied to the dispensary of the Medical College of Ohio. He strongly advised being allowed to perform the operation of enucleation, but was refused. Considered enucleation demanded in such cases, but did not entertain the use of the probe or the knife in any attempt at extraction. Dr. David D. Beck, a professor of ophthalmology in the Medical College of Ohio, explained two classes, as far as regards interference, into which these injuries of the eye from foreign bodies could be divided. The first class, in which the foreign body could be either seen by the naked eye, oblique illumination, or the ophthalmoscope, or its position determined with certainty; and the second class, those in which the foreign body could neither be seen nor its position located with any accuracy. In the first class an attempt at extraction was justifiable; in the second class an attempt at extraction was not admissible; an early enucleation, in the interests of the second eye, being demanded. Any use of the "fine bistoury," or indiscriminate poking about in the dark, he regarded as not only not admissible, but to be condemned, as being liable to bring on or hasten the advent of the very trouble aimed to be avoided—sympathetic inflammation.

He showed that the case under consideration belonged to the second class, while the case quoted from Mauthner belonged to the first class, as above given.

He illustrated to the jury, from diagrams, the probable point of entrance of the foreign body and the damage it was known to have done; and in contrast, the probable site of the small foreign body in Mauthner's case, and the radical difference of these two cases.

He explained that even if it be granted that in some rare cases of the second class, a careful use of exploring instruments might be permitted, in this special case, as subsequent developments show, probing at an early period would have been particularly injudicious. A splinter of metal $\frac{7}{32}$ of an inch in length, clinging, *as it were*, in the lips of the wound by the frail tenure of a minute portion of one end, only backed by the vitreous, of a consistency of the white of an egg, no touch could have been so delicate as not to have loosened this frail hold and driven the body entirely within the eyeball.

He regarded the line of treatment adopted by the defendants as proper: first expectant, and then, under the conditions which existed, advice to enucleate.

The lawyer for the prosecution. for we presume that under the circumstances that is the proper title, paid a tribute to the skill and learning of the defendants, and as a *charitable* construction they were only charged with neglect and carelessness to this boy because he was *poor*, and their parlors were filled with a wealthy *clientale*. The lawyer's harangue seemed to have made a very considerable impression upon the minds of the jury, for although they disagreed and were not able, in consequence, to render a verdict, yet upon ballot eight voted to find for the plaintiff and four voted the contrary.

We believe that we have fairly represented the case in this report, and have in no way misrepresented the side of the unfortunate boy, being peculiarly unfortunate in having been made the victim of ignorance and prejudice on the part of those having charge of him.

Illinois State Board of Health—Medical Education.—The Illinois State Board of Health is doing a good work, and the action which it has taken to elevate the profession should meet with the hearty approval of every physician. If it should proceed right on in its work, and if all the States would create boards having the same power, which would adopt the same course, in a few years the profession of medicine in this country would obtain a standing in the community similar to what it holds in European countries; and the fact that a person is a physician would be a guarantee that he is an intelligent man and of good moral character.

The Illinois State Board of Health having passed a resolution not to recognize the diplomas of such medical colleges as did not exact a preliminary education requirement as a condition of matriculation, now as the new graduates in medicine begin to appear, the members have been watching with more than usual interest the applications for registry and permission to practice in the State, as affording some clue to the effect of the new schedule of requirements. Although seventy-eight medical colleges out of the one hundred and sixteen in the United States claim to have exacted, at their last session, a preliminary education requirement as a condition of matriculation, the evidence afforded by the applications thus far received goes to show that, in too many cases, the standard of such education must be very low. From the graduates of one college, which announces that a preliminary examination will be held in accordance with the requirements of the State Boards, five out of the seven applications received contain such intrinsic proof of defective preliminary education, that they were presented to the Board.

The following is a verbatim copy of a typical specimen of the applications submitted:

"I send to you my Diploma for your approval the degrees of Doctor of Medicine was conferred upon me at the — annual Commencement of the —— —— —— held on Teusday Mar the — 1885. you will pleas return as soon as possiable and oblige. Enclosed you will find the fee for Regestration. Yours truly

—— ——

"P S if the fee is not sufficient I will forward the balance if you notify me by card I understood the fee was one Dollur.

"I presume the enclosed papers will be all that will be required; return Diploma to Me at —— Illinois —— co"

Here is another specimen of a letter coming from a gentleman who had received a diploma this spring from a college which professed to exact a preliminary education requirement as a condition of matriculation:

"I send you my Deploma to-day by Expr. and letter of recommendation. I sent fee and affidavit Bout three weeks since. I would like to know at once whether or not to expect a Certificate. you will Pleas return Deploma by Exp."

The letter above is the last one of three letters received from the applicant for registration, each one written in a different handwriting from the others. In one of the letters he stated that his school of practice was "Alapathy." The Board remarks that he probably passed his entrance examination as he conducts his correspondence—namely, by proxy. We hope he does not hail from any of our Cincinnati *Alapathic* medical colleges.

The Board states there is other evidence than that which is afforded by such letters—some in the form of direct charges by rival schools, some by the students themselves—that the college entrance examination is, in many cases, a mere form. Some institutions, while claiming to exact proof of general preliminary fitness and capacity for the study of medicine, evade the spirit and intent of the requirement in a variety of ways. In some instances *the certificate of a preceptor is accepted as sufficient evidence.* But how can a medical college be expected to enforce the preliminary education requirement when none of the members of its faculty possess a common school education? We think it would be amusing to be present when such a faculty would be engaged in examining the candidates for matriculation on orthography, grammar, geography, natural philosophy, etc.

The circular which we have received from the Illinois State Board of Health proceeds to state that, in order for a medical college to secure the recognition of its diplomas in Illinois, as in good standing, it should distinctly announce that the conditions of admission to its classes are: 1. Credible certificate of good moral character. 2. Evidence of the possession of a good English education, including mathematics, English composition and elementary physics, or natural philosophy—such evidence to be furnished in the absence of a diploma or certificate of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate, by a thorough examination in the branches of such education. "While this is the minimum," it is stated, "as to preliminary education, which should be distinctly specified and impartially exacted, it does not preclude colleges from making other requirements as conditions of admission to their lecture classes." Why should it preclude colleges making other requirements? Certainly there is no danger of a young man possessing too much learning to become a physician.

In the latter part of the meeting of the Board, the following paper was presented and passed, and as it embodies the whole of the requirements in regard to medical education, and is the law of the Board on that subject, we copy it entire:

WHEREAS, Many medical colleges do publicly announce that an entrance examination of candidates to their lecture courses will be exacted, and do honestly and impartially enforce such examination; while, on the other hand, a number of schools either avoid making such announcement, or evade the practical enforcement of any requirement of general education preliminary to the study of medicine; and

WHEREAS, These conflicting practices result in lowering the standard of medical education, by attracting to a certain class of schools students who are poorly prepared for the study of medicine; therefore be it

Resolved, That in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical Practice Act in this State, it is necessary that each college shall distinctly state in its annual announcement that the conditions of admission to its classes are: 1. Credible certificates of good moral character. 2. Diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate. Or, lacking this, a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

"*Resolved*, That the secretary of the Board be, and hereby is, instructed to furnish a copy of the foregoing preamble and resolutions to the dean or secretary of every medical college, and to editors of medical journals in the United States."

On motion of Dr. Mackenzie it was also "*Resolved*, That since the publication of the names and addresses of matriculates is desirable for purposes of information, the secretary be authorized to request of all colleges desirous of being accounted in good standing in this State, that they publish in their successive annual announcements complete lists of the matriculates, as well as of graduates of each immediately preceding session."

DECEASE OF DR. WILLIAM CLENDENIN.—Since the last issue of the *Medical News* the profession of Cincinnati has had to mourn the loss by death of one of its most prominent members—namely, Dr. William Clendenin, who died Sunday morning, May 3. He was attacked with pneumonia about eight weeks previous to his decease, which rapidly assumed a serious form, and for some time during its course his life was despaired of; but a favorable change occurring in the symptoms, his family and friends began to hope he would recover and be spared to them for a long time to come. In these hopes, however, they were doomed to be disappointed, for, after a time, most grave symptoms were again developed and he soon sank and died.

Dr. Clendenin was born in Cumberland County, Pennsylvania, October 15, 1829. It is said that his parents were of Scotch origin. His father was a farmer. He was very early left to the care of his mother by the death of his father—not being more than two or three years old when his father was removed by death. To the character and example of his mother he attributed the whole success and usefulness of his life. At the age of fifteen he entered the drug store of Dr.

John Gammit, at New Castle, Pa. He lived in the Doctor's family and studied medicine under his instruction. After four years in the store he became a regular medical student. In 1848 and 1849, he attended his first course of lectures in Cincinnati at the Medical College of Ohio, and in the spring of 1850 he graduated as M.D. in that institution. He did not enter upon the practice of medicine immediately upon graduating, but first spent two or three years in teaching in Indiana. In 1853, he returned to Cincinnati and put up his sign on the corner of George and Plum Streets. Soon afterward he entered the office of Dr. R. D. Mussey, the noted surgeon, and Wm. H. Mussey, his son, whom our readers will remember died about two years ago. He continued in the office of the Musseys for a number of years, or until, we believe, he assumed the duties of a surgeon in the army during the late war. In the winter of 1856-'57, he became Demonstrator of Anatomy in the old Miami Medical College, and filled the position until a majority of the members of the Faculty accepting places in the Faculty of the Medical College of Ohio, the institution ceased to exist. After resigning his position in the army, on returning home, he became Demonstrator of Anatomy in the Medical College of Ohio. He did not hold the position long, however, until he resigned.

In 1859, the Doctor made a trip to Europe, and while there, in the cities of London, Paris, etc., he attended upon the hospitals and witnessed operations. Soon after returning, the War of the Rebellion beginning, he went to Washington and was examined by a medical board and received an appointment as a brigade surgeon at Camp Dennison, near Cincinnati. He had his first military experience under General Mitchell. Afterward he was sent to West Virginia, under General Rosecrans, and there served in Generals Fremont's and Sigel's commands. After the second battle of Bull Run, in which he participated, he took charge of Emery General Hospital, Washington. Later he served under Rosecrans at Murfreesboro, Tenn. He became Medical Director of the Fourteenth Army Corps under General Thomas, and after the battle of Chickamauga, Assistant Medical Director of the Department of the Cumberland, with charge of all the hospitals and transfer of the sick. Subsequently he was appointed Medical Inspector of Hospitals, and held the position till July, 1865. At this time he was called to Washington and received from President Johnson the appointment of Consul to St. Petersburg. But having just been chosen Professor of Surgery and Surgical Anatomy in the Miami Medical College, and other private matters interfering, he was compelled to decline. It was, however, a proper recognition of Dr. Clendenin's valuable services to his country during the years of trial, which everybody now remembers, and may not be discounted by the fact that Dr. Clendenin lost his health in the war, and carried the effects of that loss through the remainder of his days to his grave. It is also part of that history that the Government not only did not grant him a pension, which he richly deserved, but failed to settle up with him for pay, simply because he was a disbursing officer, and therefore obliged to wait his turn in the circumlocution office at Washington.

Having finally returned to Cincinnati in 1865, he was appointed Health Officer, a new office created by the City Government in anticipation of the advent of cholera. He was, consequently, Cincinnati's first Health Officer.

After taking charge of the sanitary affairs of the city as Health Officer, he communicated with Eastern cities in reference to their health regulations. Afterward he drafted a sanitary bill and presented it to the Legislature. This bill, with features peculiarly adapted to Cincinnati, was finally passed March, 1867. The winter before the Legislature refused to pass the bill, but one year of cholera materially changed their views, and it was ultimately made a law without opposition.

As a physician no medical gentleman in Cincinnati occupied a higher position. He was thoroughly versed in the learning of his profession, and understood well how to apply his knowledge to practice. He was a superior practitioner. While having the charge of numerous military hospitals during the war, and while the Health Officer of Cincinnati for several years, he exhibited very superior executive abilities. So exceedingly modest and unassuming had he always been, that many, who had not known him intimately before, were astonished at the ability he displayed when he assumed the duties of a Medical Director in the army and those of Health Officer of the city in which he resided. His friend, Dr. J. C. Culbertson, truly stated of him that he was a man who never shrank from the discharge of any duty that he was called upon to perform; that as an elder of the church of which he was a member, the First Presbyterian Church of Cincinnati, he was zealous and faithful—proving to all the sincerity of his religious profession by his daily walk and conversation.

At the time of his decease, Dr. Clendenin, besides being the Dean of the institution, held the Chair of the Principles and Practice of Surgery in the Miami Medical College, and and also the Chair of Descriptive and Surgical Anatomy in the Ohio Dental College of Cincinnati. He leaves a wife and son about sixteen or eighteen years of age. His venerable mother, eighty-five years old, was at his bedside when he died. She is a resident of Pennsylvania, and at the time he seemed to be better during his illness, he wrote a few lines to her at the close of a letter one of the family had written her, expressing filial regard and encouraging her with the hope that he would soon get well.

At noon, May 5, the profession held a meeting at Lancet Hall to take action in regard to the decease of Dr. Wm. Clendenin. There was an unusually large number of physicians present. Dr. C. G. Comegys was called to the chair, and Dr. A. C. Kemper was appointed Secretary. On taking the chair, Dr. Comegys made some quite lengthy remarks, showing the high esteem which he held for the deceased. We would be pleased to quote them in full, for they met with a hearty response from all present, but our space will not permit. We can only quote a single paragraph in which he said: "In tracing the professional career of the deceased, it was known by all who knew him that his whole life was marked by simplicity of manner and a total absence of assumption and egotism; and these qualities, taken in conjunction with such distinguished services as he was known to have rendered to his country, to the State, and to the city and community, serve to stamp him as a great man, and as such, he was free to say, he would always regard him."

Remarks were also made by Drs. John Davis, Wm. Davis, E. Williams and many others. A committee appointed to draft resolutions reported as follows:

"Again is the medical profession of Cincinnati called together to mourn the loss of one of its members.

"The angel of death has entered our midst and taken away one of our most devoted co-workers.

"Dr. William Clendenin was one of the most eminent members of the medical profession of this city. He won his position by dint of long-continued and arduous labor. He was a most thorough anatomist, a conservative and successful physician, a skillful surgeon. As a teacher he was beloved by his students and his instruction was highly prized; as a public man, whether as a medical officer in the army or as Health Officer of Cincinnati, his services were extremely valuable.

"Faithful to every duty, true to every trust, his conduct in life was direct and straightforward, upright and honorable. Where Dr. Clendenin was most intimately known, there was he most dearly beloved. He was a noble specimen of the true man. Therefore, be it

"*Resolved*, That as we mourn his loss we will cherish and revere his memory, and will endeavor to imitate his virtues and emulate his example; that we extend to his bereaved family our heartfelt sympathy in their affliction, the loss of a devoted and loving son, husband and father.

"A. M. Brown, M.D.,
"C. D. Palmer, M.D.,
"F. W. Langdon, M.D.
"Committee."

A called meeting of the dental profession was held in the office of Dr. J. Taft to take action on the death of Dr. Clendenin. Drs. J. Taft, A. Berry, H. A. Smith, C. M. Wright, James Leslie, N. S. Hoff and E. G. Betty were appointed a committee to draft resolutions expressive of the sentiments of the dentists of Cincinnati in regard to the deceased, in whose institution of learning he had labored as an instructor. The resolutions were laudatory of his noble qualities as a teacher, a physician, a public benefactor, and a Christian gentleman. Want of space does not permit of our publishing them in full.

Thus pass away members of the profession of Cincinnati, who, during their lives, filled leading positions. As a journalist, we have written the obituary of nearly every medical man who held a prominent position in the profession in Cincinnati twenty-five years ago. With but a few exceptions, every physician that was a well-known practitioner in this city a quarter of a century ago has passed to that bourne from which no traveler returneth, and we have been called to note the departure of each one. Who will be the next one? occurs to our mind. Dr. Wm. Clendenin was the first physician of Cincinnati with whom we became acquainted, a little more than thirty years ago.

DEATH OF DR. G. VOLNEY DORSEY.—Dr. G. Volney Dorsey died at his residence in Piqua, O., on the evening of

May 15, after a lingering illness. He was 73 years of age. In his death the State loses one of its most useful citizens. For forty years he was prominent in the affairs of this State; a Presidential Elector in 1848, he was next year elected a member of the convention which framed the present Constitution of Ohio, and several of the most important clauses of that instrument are his handiwork. Before the war he was an active member of the Democratic party, and received several nominations for Congress. At the outbreak of the Rebellion he was one of the foremost of the Union party, and has since been an active Republican. He was Treasurer of State from 1861 to 1865, Chairman of the Republican State Committee in 1864, Presidential Elector-at-Large on the Grant and Colfax ticket, member of the Constitutional Convention of 1873, and filled many other important positions. He was twenty years a trustee of Miami University, was president of the Citizens' National Bank, and of the Marine and Erie Canal Association, and senior warden of the Piqua Episcopal Church, of which body he was an active and prominent member. He was one of the finest linguists in the country, his published translations from the Latin and Greek poets having gained him a high standing in literary circles, while he stood in the very front rank of the medical profession, in which he has been engaged for nearly half a century, The death of this cultured and gifted gentleman is deeply deplored at home, and will be no less so by his wide circle of acquaintances throughout the country.

INTESTINAL OBSTRUCTION TREATED BY WASHING OUT THE STOMACH.—The *Louisville Medical News*, in a recent issue, says: "Dr. J. T. Whittaker, in the *Cincinnati Medical News*, April, 1885, gives the history of a case of obstruction, in which he employed this method of treatment, and calls attention to the fact that so long ago as April, 1880, he had read before the Cincinnati Academy of Medicine the notes of a case treated in like manner. In this, although irrigation gave relief to the distressing vomiting, the issue was fatal. Dr. Whittaker would, therefore, seem to be the originator of the measure, which, if he establish the claim, will be but one of many proofs of his sagacity in dealing with difficult therapeutic problems."

The *Louisville Medical News* proceeds to state that it has been claimed that, "Attention, it is claimed, was first drawn to this subject by Kussmaul (Berl. k. Woch., No. 43, 1884), who reported four cases of ileus relieved by siphoning out the contents of the stomach and the injection of warm water. More recently the subject has been discussed before the Berlin Medical Society, and Senator adds three cases to those of Kussmaul. One of these was a case of acute occlusion of seven days' duration, with excessive vomiting and impending collapse. Medication being of no avail, a tube was introduced and the stomach irrigated with warm water. The symptoms were immediately relieved, and on the next day, after another washing out of the stomach, a normal evacuation of the bowels occurred. This procedure was subsequently repeated four times with marked relief to the patient, who, however, eventually succumbed to a permanent obstruction, which was found, post-mortem, to be due to chronic tubercular inflammation of the peritoneum.

"The second case was one of carcinoma. In this irrigation gave great, but, of course, only temporary relief.

"The third case was one of acute obstruction. This was permanently relieved.

"The good results so often obtained by this procedure are explained upon the following theory: First, that the stomach and intestines above the point of obstruction are emptied of all accumulated material, which, supplemented by evacuation from below, gives room in the abdomen for the free movement of the bowels. Second, the chief hindrance to peristaltic action being thus removed, spasm is allayed, the natural vermicular movements are restored, and the gut is placed under the best possible conditions for extricating itself from invagination or volvulus, or the pushing onward of obstructing masses.

"The method of performing the irrigation is simple. A tube is introduced into the stomach and its contents withdrawn, after which warm water is injected and brought again to light. This is usually continued until the fluid coming away is clear. The procedure is repeated as often as the symptoms may call for it, a return of nausea and vomiting indicating that the stomach is again filling with intestinal accumulations. The only contra-indication to the measure would seem to be gastric ulcers, but Debove claims that by the use of a soft tube and the exercise of due care against overdistension with water, irrigation may be practiced in spite of the ulcer, and without fear of perforation.

"Recent advances in abdominal surgery have made laparotomy justifiable in all cases of intestinal obstruction which, in reasonable time, give no evidence of spontaneous cure; but this operation is too hazardous to be thought of so long as simpler measures hold out a reasonable hope of success.

"The above noted procedure is rational and without danger, and being applicable in all cases, and not without promise of good results, it will doubtless come into early favor with the conservative physician, who may thereby be able to save not a few desperate sufferers from the dread ordeal and doubtful issue of a capital operation.

A County Medical Society.—It has been suggested to us that it would not only be quite feasible, but that it would be attended with benefit for a medical society to be organized that would embrace the whole profession, or as many as would be inclined to connect themselves with it, of Hamilton County. There are two societies at the present time in Cincinnati, the *Academy of Medicine* and the *Cincinnati Medical Society*, but the profession of the county, outside of the city, have no organization. Membership of the Academy of Medicine, we believe, is not limited to the city by any rule of the society, but, as it holds its meetings once a week at night, it is impossible for physicians living at some distance from the city to attend. The country physicians of Hamilton County, as they have no society, need one very much. In the villages, near the city, there are not a few very intelligent and competent practitioners of medicine, who, under present circumstances, are deprived of the privilege of comparing notes with one another and of exchanging experiences.

We have heard it said that the country physicians of Hamilton County would probably prefer to have a society whose members would be limited to themselves, excluding the physicians of the city, but we do not believe that such an arrangement would be feasible. The modes of travel are such that to go from one part of the county to another, it is necessary to pass through the city, and in doing this there would be great loss of time and much inconvenience suffered. Under the circumstances, the country physicians would have to hold their meetings in the city, and, such being the case, what objections could there be in having their city brethren join with them? It would certainly be to the advantage of both parties. In the discussions that would follow medical men of the city would receive no little information as to the phenomena observable in diseases whose subjects had always been healthy, uncontaminated by city vices, well fed, breathing pure air, etc.; while the rural physicians would be enlightened in regard to the course of many affections, of which they generally see but little.

But we will say no more upon the subject at the present time. We may speak of it again at a future time. We hope that what we have said may meet with attention, and that the subject, in consequence, will receive the serious consideration it deserves. It would be an easy matter to adduce many arguments, showing the great benefit that would result from the organization of a society that would take in all the medical men of the county. Such a society could more easily be kept from the dominance of clique or party influence than any organization, made up entirely of members of the profession of the city, possibly could be.

THE INTERNATIONAL MEDICAL CONGRESS.—This Congress, which met last year in Denmark, and was honored by the presence of the King in person, will meet by invitation in this country in 1887, at Washington. This will be its second meeting in this country, having met at Philadelphia during the Centennial.

It would have been supposed that high-toned men would have had the preliminary organization in charge, who would have taken care that each State should be properly represented. But it seems that the committee, instead of looking after the interests of the profession at large, have devoted themselves to subserving the interests of their cliques. By their action it would appear as if all the medical learning and talent of this country were limited to the cities of Boston, New York, Philadelphia and Washington. Of 300 or more members of the committees, Boston claims *thirty-four*; New York City, *sixty-two*; Philadelphia, *fifty-one*; Washington, *thirty-five*. We are, therefore, given to understand that the most eminent and scientific men are to be found in three States and the District of Columbia, and in these States they are limited to three cities. In the great State of Pennsylvania it seems its talent is limited to Philadelphia, with but a single exception. Of the New England States, Maine and New Hampshire have each one, and Rhode Island two, representatives. The States of Delaware, Florida, Kansas, Mississippi, Nebraska, Nevada, Oregon, Vermont and Virginia, have not been considered worthy of any recognition by the International Medical Congress.

We hope the profession of the West will not submit to this discrimination against themselves. There is plenty of time to give expression of feeling in regard to the insult, and we hope it will be improved.

THE EPIDEMIC AT PLYMOUTH, PA.—The most of our readers, if not all of them, have heard through the newspapers of the terrible epidemic which has been prevailing at Plymouth, Pa. Subscriptions of money and clothing have been raised, for the aid of the suffering poor, at Philadelphia and other places. The disease, in many instances, has rendered families destitute, by striking down the head, who before had never known want. In a period of just a month—from April 17th to May 16th—between 1,000 and 1,200 persons, in a population of 8,000, have been attacked, with already about 100 deaths.

The disease is stated as being true enteric or typhoid fever. The origin of the epidemic is satisfactorily accounted for, as is stated in the *Medical Record*, by the local physicians, Drs. Murphy, Taylor and Miner. The town of Plymouth is situated on a belt of alluvial soil and upon foothills which slope toward the Susquehanna River. There are always some malarial diseases among the inhabitants. The water supply comes from reservoirs, which are filled by a brook that drains into the Susquehanna. The town has no sewerage system, and is filled with a mining population, of which the greater part is too poor or too ignorant to pay any attention to sanitary laws. Last winter a person, while visiting Philadelphia, contracted typhoid fever. The disease appeared after his return to Plymouth, in March. While sick he occupied a house about forty feet from the banks of the brook, between the third and fourth reservoirs. The excreta were thrown upon the snow near the bank. When the snow melted, the infectious material was drained into the brook, and thence to the reservoirs, from which it was distributed through the town. This view of the origin of the disease is corroborated by the fact that, in many instances, families which were supplied with well-water did not take the disease.

A HARD TIME.—Koch's "Comma Bacillus" appears to be having a hard time of it among the experts. First, Dr. Klein showed his contempt for it by swallowing it, and now Dr. Lancaster has the unkindness to say: "First, it is not comma-shaped; second, it is not a bacillus; third, it does not always occur in the intestines of cholera patients, and, fourth, there is no good evidence that inoculation with it produces cholera." In fact, the poor thing appears to be about annihilated by its critics. Cholera, though, will remain undisturbed by it, and relentlessly claim its thousands of victims, as heretofore.—*The Microscope.*

THE *Philadelphia Medical Times* says that if all other journals and books of the century were to perish, we could gather from the pages of Virchow's *Archives* the history of most of the important discoveries which have marked the progress of scientific medicine. The occasion of the publication of the one hundreth volume is taken by the editor to review briefly the history of the undertaking. It is now eight and thirty years since, as a young and almost unknown Prosector at the Charitie, Virchow sought to establish a journal as a medium for the pathological and clinical contributions of the more advanced workers in North Germany.

INTENDED RESIGNATION.—We understand that Prof. Pancoast has announced his intention to resign his Chair of Anatomy in the Jefferson Medical College at the expiration of the next term.

AN unusually observing person suggests, in a late *Harper's*, chewing gum as a remedy for dyspepsia. He claims that the Maine lumbermen do not suffer from dyspepsia, and he attributes it to their habit of chewing the gum of the spruce tree. If he were to add to his suggestion of chewing gum that of becoming a lumberman, the remedy would be very effective.

IODOFORM IN DIPHTHERIA.—Dr. Korach, of Cologne, claims a mortality of only 7 per cent. by penciling the membranes with a solution of m 45 of balsam of tolu, m 380 of ether (filtered), to which 38 grains of iodoform have been added. The drug may also be used in the form of a powder by insufflation.—*Therapeutic Gazette.*

THE

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Original Contributions.

Tracheotomy in Diphtheria and Croup.

BY J. W. SPICER, M.D., ACTON, INDIANA.

Read before the Marion County (Ind.) Medical Society, April 24, 1885.

IN presenting a paper to the Society on the subject of tracheotomy in diphtheria and croup, I am fully aware of the difference of opinion among the members of the medical profession in regard to it.

While few, perhaps, of the present day would deny the imperative necessity of its performance in desperate cases of membranous croup, there are not a few who would hesitate to resort to what they might consider a desperate measure in the other condition of diphtheria, where the whole system is charged with the poison and the vital powers dangerously depressed.

In these cases, while opening the trachea might afford relief from the dreadful suffering of suffocation, yet in the majority of cases of this disease of a malignant type, death would eventually ensue from the depressing effects of the diphtheritic poison upon the system, if not hastened by the loss of blood from the operation.

It is of comparatively recent date that the disease known as diphtheria has been described as a distinct and separate disease; *Bretonneau* having fully described it in 1826, giving it the name which it now bears.

Hippocrates is supposed to have called attention to it more than two thousand years ago, and *Aretœus*, of Cappadocia, who lived during the first century of the *Christian* era, is given the credit of describing this disease ; at least, *his* description answers, in many respects, to the disease as now seen.

The first epidemic of which we have any definite knowledge occurred in Holland, in the year 1337.

The first case known in the United States occurred in Roxbury, Mass., in December, 1659.

Douglass, of Boston, described it in 1736, and Samuel Bard, of New York, in 1771, since when it has occurred in various parts of the United States.

Its place now in nosology, being zymotic, would point in its pathological relation to blood poisoning.

The name, diphtheria, is applied to a specific contagious disease, which occurs epidemically, endemically and solitarily, and is characterized by more or less inflammation of the membranes of the pharynx, larynx or air-passages, upon which, especially those of the fauces and air-passages, deposits of lymph or false membrane form.

Diphtheria is a constitutional disease of grave import, the affection of the throat being a part of it, although in many cases the principal part.

Contrasted with croup, which is a sporadic, sthenic, local phlegmasia, the symptoms caused and kept up by the local inflammation, it stands with decided asthenic symptoms, the local affection of the throat being secondary.

These two diseases—diphtheria and croup—are closely allied ; so much so, indeed, that a great many physicians believe them to be identical.

There are, however, a few characteristics, or practical clinical differences, which lead us to regard them as distinct diseases.

First, diphtheria is contagious ; croup is not. Second, in diphtheria there is always fever at the beginning, which may continue through the disease ; while in croup the absence of fever is pathognomonic of that disease.

Third, diphtheria is inoculable ; croup is not. Fourth, diphtheria attacks both old and young ; croup is confined mostly to children. Fifth, death from croup often takes place from obstruction ; diphtheria often proves fatal without the least impediment or obstruction to respiration.

In croup the inflammatory process at the beginning is simply a severe catarrhal one, consisting in an increase in the vascularity of the mucous membrane, together with an exudation of liquor-sanguinis and blood corpuscles, and proliferation of epithelial elements.

It is difficult, in many cases, to draw the line between the changes occurring in diphtheria and those of croup. In diphtheria, however, the sub-mucous tissue usually becomes more extensively involved. so that the false membrane is much less readily removed. The circulation also often becomes so much interfered with, that portions of the tissue lose their vitality, and large sloughs are formed, which, after removal, leave a considerable loss of substance.

In the treatment of diphtheria, after all other means have failed to give relief, the symptoms continuing to increase and respiration becomes impeded, or so much embarrassed that death seems eminent, the propriety of tracheotomy becomes a serious consideration.

In the course of my practice I have been called upon to treat a few cases of diphtheria; unfortunately, in two cases, both terminated fatally. One in a sudden and unexpected manner; no doubt from paralysis of the heart. The throat was not, apparently, very seriously affected; the breathing not much disturbed; the patient complained of pain in swallowing; the fauces presenting a red appearance, bnt without the exudation so common.

In the other case the throat was much swollen internally and externally, the fauces lined with the characteristic false membrane, voice husky with obstructed breathing. I applied remedies internally and locally, with the view to dislodge the false membrane, without attaining the least benefit. Liquids taken into the stomach regurgitated through the nostrils, and the pulse was weak and feeble, requiring active stimulation, which was kept up to the last. During this time I was in a state of agitation and trouble. Tracheotomy was passing through my mind, and I was thinking of attempting alone, without professional aid or counsel, a measure which might hasten the final issue.

However, the pulse began to fail, dyspnœa increased, liquids taken were not swallowed, the extremities became cold and the scene speedily closed in death.

In looking into the subject of tracheotomy generally, in croup as well as diphtheria, and in examining the authors in my possession, first, those of more ancient days, I find more said about it in croup than in diphtheria.

Even in these there is considerable difference of opinion.

Tweedie, in the "Cyclopedia of Practical Medicine," does not advise it in diphtheria, and *Cheyne* takes decided grounds against it in croup. *Bretonneau* published his first successful operation in croup in July, 1825; and ten years later *Trousseau* reports thirty-six cases of croup where the operation was performed, with nine recoveries.

From this time the position of the operation was established, and it has since been performed many thousand times in France alone.

Trousseau, before his death, published 466 cases of croup in which the operation had been performed in the Children's Hospital, in Paris, between the years 1849 and 1858. Of these 126 recovered, or about one in four.

Dr. Solis Cohen has brought together 166 cases of tracheotomy in croup, with 110 recoveries.

Dr. George B. Wood, in his valuable work on the practice of medicine, does not mention it at all in diphtheria, and speaks doubtfully of its success in croup. He says: "It is very difficult to determine upon the real value of the operation. If postponed until the case is otherwise quite desperate, it affords very slender chances of success; if performed at an earlier period, it saves life, but possibly may do no more good than can be accomplished by other means. Besides, in order to obtain its most favorable results, a degree of skill in operating is necessary which is not found in practitioners generally."

Coming down to more recent writers, we find *Hartshorne*, in his "Essentials of Practical Medicine," does not speak of it in diphtheria, and in his own practice has abandoned it in croup.

Dr. Austin Flint speaks of it in diphtheria thus: "Where there is laryngeal obstruction the condition is the same as in croup, and the practitioner is reprehensible if he allows the patient to die of suffocation without opening the trachea."

But suppose the laryngeal obstruction is not present until the last, as in most instances it undoubtedly is, after the false membrane has extended perhaps to the trachea and bronchi, and tracheal and bronchial obstruction are superadded; what hope can there be for success, especially when the patient is already prostrated by the depressing influence of blood-poisoning, and, perhaps, so near death that he may die under the operation?

Besides, the condition in diphtheria, with laryngeal obstruction, is not the same as in croup; the latter, as has been said, is an inflammatory sthenic disease, while the former is decidedly asthenic.

One depressed and laboring under a grave constitutional malady, the other affected with highly inflammatory symptoms.

One would be undoubtedly injured by the loss of a small quantity of blood, and the other, perhaps, benefited by it.

Although *Dr. Flint* speaks in such strong language of the necessity of the operation, he admits the chances are slender, but says: "The patient is entitled to that chance, however small it may be."

The chances in diphtheria, as in croup, would be greater if performed earlier, but few practitioners in the country can demand the operation early, and in the moribund state the vascular congestion from asphyxia renders success difficult, sometimes impossible.

In croup, where death by suffocation is imminent, all other means having failed, the chances of saving life by the operation are much greater than in diphtheria, provided it is performed sufficiently early to give the patient a chance to rally from the shock.

The preceding views on the subject have been made altogether in a medical aspect, as to the advisability of the operation in the two diseases under discussion. A few remarks on the surgical view of the question might not be inappropriate.

Erichsen says: "Tracheotomy is often attended by extreme difficulty, and not unfrequently with a considerable amount of danger. These are, profuse hemorrhages; difficulty of opening the trachea from the convulsive breathing of the patient, and, in children, almost always a tedious and dangerous operation; the exposure of the trachea, requiring careful dissection, owing to their stout, short necks, and much time lost before puncturing it, owing to the free hemorrhage." He, therefore, prefers laryngotomy as more simple, easy of performance, and with more safety to the patient, and less delay. Hence he says: "Where time is of importance, as it always invariably is in croup, I should prefer the *high* to the low operation." This being the case, he thinks that on comparing the two operations the surgeons should not hesitate to choose laryngotomy, on account of greater simplicity, safety, and rapidity of performance. If this is so, a great burden of anxiety would be lifted from the mind of the country physician, situated as he is, remote from professional aid and counsel, and with but few facilities for surgical procedures.

By an operation that can be performed with safety and expedition, he would hold in his hands a means of saving many valuable lives that might be lost in a disease so much dreaded by anxious mothers and so fatal to infantile life as diphtheria and croup.

A Case of Puerperal Convulsions.

BY R. R. HOPKINS, M.D., NORTH LIBERTY, O.

MAY 14, 1885.—I was called to attend the wife of Thos. E., æt. 32, at a distance of two miles from my office. I arrived at the bedside of the case in about an hour, and found her in a hard labor, with a shoulder presentation. I quickly saw in the case approaching convulsions, as the sack of water had already been discharged. I immediately pushed the shoulder back and brought the head to present. By this time the most terrific convulsion was on her that I ever witnessed. I applied chloroform freely by inhalation, and even dashed it on the breast. The convulsions soon gave way, but left the patient delirious and blind. I applied the forceps as quickly as possible, and delivered as rapidly as possible—which did not take long—of a male child, healthy and strong. The afterbirth soon followed, the patient remaining delirious and blind. I had already given her a dose of calomel and bromide of potassa and hydrate chloral; had applied a blister to nape of neck and mustard drafts to legs and soles of the feet; the womb had contracted nicely. I introduced catheter and drew off quite a quantity of dark coffee grounds colored urine. Soon after catheterization, she took another convulsion, fully as severe as the first before delivery. The convulsions now continued one right after another. I immediately gave an enema of tr. lobelia, turpentine and soap, which was retained nicely. I then administered the following.

℞. Chlor. hydrat.
Bromid. of potass., . . āāʒiv.
Syrup. simpl., ... ℥iij.
Misce. Sig.—Teaspoonful every half hour.

After two doses had been given, the convulsions became less in frequency and force, but continued until she had thirty-two in number, then ceased entirely. Medicine continued now every two hours, as patient had become somewhat stupid and more quiet from her delirium. The febrile action was now quite high; temperature, 103°; pulse, 130; respirations, rapid. I now prescribed the following: Tr. ver. vir., and tr. aconite; kept cloths wrung out of ice-cold water to the head. Occasionally I could see a convulsive tremor of the muscles over the body, but no general convulsion occurred. I passed the catheter into the bladder frequently to prevent any accumulation of urine. Tr. ver. vir. and tr. aconite was now continued every hour, until I got the pulse lowered. The blister on neck drew well. I also gave fl. ext. gelseminum, ʒij.; aqua, ℥iv.; misce. sig., teaspoonful every two hours. The bowels had not yet acted; I gave the following to act on them:

℞.	Oleii ricini,	℥i.
	Syr. rhei aromat.,	℥i.
	Aqua menth. pip,	℥i.
	Ol. turpentine,	ʒiss.
	Gum. acac.,	℥ss.

Misce. Sig.—Teaspoonful every two hours until bowels acted.

As it was now late in the evening I returned home for a little rest.

May 15.—I visited patient again quite early in morning; found patient a little better; bowels moved; fever down. Temperature, 100°. Lochial discharge about normal; kidneys had acted quite freely. I continued the use of special sedatives, but not so freely; directed the circulation to be the guide or index to the administration of those remedies. As head was yet quite hot, continued the ice-cold water to the head and the syrup of the bromide of chloral to keep her quiet. The deliriums had now become wild fits of madness, then fits of laughter; still she remained blind. I remained with the case nearly all day; could notice the gravity of the case ameliorating.

May 16.—I visited the case again early in the morning; found eyesight partially returning; could speak a few intelligent sentences at times. The wildness was now subsiding. She had taken a little nourishment. I found bowels quite tympanitic; applied turpentine ointment over the bowels and sulph. quinine in four-grain doses every four hours. Gave gelseminum four times a day; ordered the syrup of bromide of chloral given as directed before, unless she became nervous or wild, then to increase it, and give more freely.

May 17.—Visited the case; found she had passed a pleasant night. About 12 o'clock on this day she had evidence of another convulsion. The nurse immediately gave the syrup of bromide of chloral, as directed, and sent for me in haste. I returned to patient as quickly as possible; found, upon examination, a clot of blood in the mouth of the womb, which I immediately dislodged. After this, the patient went into a sound sleep; was allowed to sleep four hours, and wakened up very much better in every respect—the mind improving, fever down, bowels and kidneys acting well; the only complaint was pain in the head. I applied now for this trouble, hot weakened whisky, which gave almost immediate relief. She could now begin to see, and to-day asked for the child; the child is doing well also.

May 18.—Visited patient again; found all symptoms of patient improved; had taken plenty of nourishment. Still continued the turpentine ointment, gelseminum and quinine, and, in case it was necessary, to use the syrup.

May 19.—Found patient still improving; same treatment to be continued. Opened the bowels with an enema of castile soap water, which acted nicely; the eyesight about as good as ever.

May 20.—Found her improving nicely; temperature, normal; pulse, 85; respirations, normal. Some headache continued. Tr. gelseminum three times a day, quinine three times a day, also occasional hot whisky to the head. I discharged the case on this date. I regard the recovery as remarkable. The syrup of the bromide of chloral with the gelseminum acted like a charm in this case in relieving the irritation of the nervous system, besides completely controlling the convulsions. This woman had a rapid labor. Her health was not good at the time, and in the process of labor she either ruptured, pressed on, or perhaps dissevered one of the main branches of nerves close to the plexus that originated from the twelfth pair; also a heavy strain on the thalmus opticus, causing blindness, which, I am satisfied, occurred in the first convulsion before delivery, for the reason that, after the mind returned, the eyes were the last to improve, and that the mind failed in the beginning.

Facts Serving to Prove the Contagiousness of Tuberculosis; With Results of Experiments With Germ Traps Used in Detecting Tubercle-Bacilli in the Air of Places of Public Resort, and a Description of the Apparatus.

BY W. H. WEBB, M.D.

[Read before the College of Physicians of Philadelphia, Feb. 4, 1884.]
Reported for the CINCINNATI MEDICAL NEWS.

(*Concluded.*)

I might add to this list a number of cases, were it necessary to do so, for I have the notes of many which prove conclusively the contagiousness of phthisis. Indeed, any one can lay his hands upon recorded cases without number which would convert even the most skeptical to this belief.

No one, not even the non-contagionists, can declare that the cases I have narrated are simply "coincidences." The experience of medical men, especially of those who are engaged in the treatment of lung disorders, must be similar to my own, and I can not see how there can be a question in their minds in regard to the contagiousness of phthisis.

If the most convincing proof of the truth of a comprehensive theory lies in its power of absorbing and finding a place for new facts, and its capability of interpreting phenomena which had previously been looked upon as unaccountable anomalies, then I know no theory more truthful than the one which I have advocated before you this evening. It will fully explain every phenomenon connected with this malady, the universal mortality it occasions in every part of the world, and why one member of a family after another, with no hereditary predisposition, has succumbed to its power.

It is a singular fact that in all the recorded cases where the disease has been occasioned by close association with the phthisical, as in nursing, it has been unusually rapid in its course, frequently carrying off those unfortunates during the lifetime of those from whom the disease was contracted.

And what does all this teach us? Simply this, that our real strength in battling with this terribie disorder lies not so much in medication as in the application of hygienic and sanitary laws.

Surgeon-General Von Lauer, of the Royal Prussian War

Department, in a letter dated October 16th, 1884, kindly inclosed to me a copy of the instructions which he issued in regard to diseases of the lungs. They are of such importance that I quote them in full. It is also of interest to know that in Austria, where the bacillary origin of tuberculosis met with greater opposition than anywhere else in Europe, the Government has recognized its infectious nature and has issued official instructions similar to these of Surgeon-General Von Lauer. The same precautionary measures should be adopted in the hospitals of our own country, and it is fair to assume that this will be done.

[COPY.]

DEPARTMENT OF WAR.

BERLIN, Aug. 31st, 1882.

The various detailed reports, which, in pursuance with request of November 24th, 1881 (No. 157, II., M. M. A.), have reached this Department, have clearly shown that there exists no material difference of opinion regarding the reasons for the high annual sick and mortality rate from consumption during the time of active service.

The universally acknowledged causative relations will necessarily lead to still greater caution in the treatment and care of those exhibiting the earlier symptoms of chronic pulmonary disease, as well as those in whom a predisposition is suspected or clearly discernible. The prescribed regulations should therefore be borne in mind, in order that the number of consumptives in the army may thereby be diminished. The following instructions must always be carefully observed:—

1. Although the predisposition to affections of the lungs can not be objectively determined, and the time permitted the surgeon during the recruiting service often not extended enough to permit a careful and searching examination, to determine this question, the medical officer in charge is earnestly urged to consider the build, configuration and exhaustability of the thorax. In this connection he is to adhere closely to the instructions of April 8th, 1877, regarding the normal limitations. Shoemakers and tailors (Oekonomie-handwerkern) of delicate frame require very careful inspection of the chest organs.

When the circumstances attendant upon the recruiting service are not favorable to exact examination, special attention is to be paid to more rigid inquiry when the recruit reaches his regiment, as directed in Par. 13 of the instructions. Here it will be of value, in forming an opinion in your cases, to seek direct official information regarding family history or previous disease of the lungs or plura.

But in order not to lose sight of those cases which have either been overlooked at first inspection, or whose character could not then be ascertained, the recommendation of the various corps surgeons that, with the coöperation of the proper authorities, medical examinations should be repeatedly made at stated intervals, should be particularly borne in mind, with special attention to those in whom disease of the respiratory organs is suspected. Special records, carefully noting the condition of each examination, must be kept. The extent to which the weakly are to be spared the arduous work of training must be determined by the requirements of individual cases. The industrious use of douche baths, to harden the skin and accustom to exposure, naturally suggests itself here.

2. The attention of surgeons is directed to the fact that the instructions (Par. 5, Sec. 4, to Par. 7, Sec. 2) do not permit a judgment upon volunteers without considering their fitness for field service. Complete fitness, therefore, is indispensable to a declaration of efficiency.

3. For convalescents from acute diseases of the respiratory organs a prolonged period of after-treatment and care is desirable. If the circumstances of the patient make home attention attainable, and only then, is a lengthy furlough to be recommended. Those returning from such furloughs are to be carefully re-examined, and, if necessary, their transference to the appropriate health resort taken under advisement.

4. That the first symptoms of disease of the lungs may not be overlooked in making the rounds of the barracks, particular attention should be paid to apparently mild "catarrhs," utilizing, if necessary, evening temperature measurements. Doubtful cases should be transferred to hospital for observation.

5. The opinion of many medical officers, that prompt measures should be taken for the discharge of sufferers from chronic pulmonary diseases, should not be forgotten. That even one attack of hemorrhage (Bluthusten), if it is proven to be of undoubted pulmonary origin, is sufficient cause for discharge, and is emphatically emphasized. That the early

dismissal of cases affording no probability of usefulness to the service removes a source of infection for hospital and barracks, must be viewed as by no means the least important advantage of this provision.

Now that experimental pathology has furnished exact scientific corroboration of the theory of the infectiousness of phthisis, more importance than ever must be attached to the separation, both in hospital and barracks, of those afflicted with or suspected of phthisis, from other patients, especially from those suffering from inflammation of the lungs or recent bronchial catarrh. The sputum being the principal carrier of the disease germ, and, consequently, the principal source of infection, provision for its removal and disinfection (Unschadlichmachung) follows as a matter of course.

In answer to the question raised by this Department, as to whether new measures for the diminution of the number of cases of phthisis, with particular reference to the necessity for the establishment of climatic summer or winter stations for their treatment, were called for, the responses were unanimous against such establishment. The indications for them were considered uncertain, and the existing provision adequate for the present necessities of the army. The Department indorses this view, and is convinced that the careful observance of the general directions herewith transmitted will be of interest and service to the army, as well as to the patient. Although tedious attempts at cure by long continued stay at climatic stations may be considered of doubtful value to the phthisical patient, and not at all likely to furnish the army with a soldier fit for field service, the prompt despatch of a convalescent from an acute non-phthisical affection of the respiratory apparatus to an appropriate station, is warmly to be commended. Such station, from among those at the disposal of the Department, is to be carefully selected, and treatment conscientiously carried out.

This communication, with five copies, is transmitted to you, with the request that you submit your views to the General Commanding, and instruct the sanitary officers of the corps to be guided thereby.

[Signed.] V. LAUER-STRUBE,
Department of War, Army Medical Division.

To all Royal Corps Surgeons, No. 230, 4, 82, M. M. A., 64, 9–84, M. M. A.

Like other disease germs, the tubercle-bacilli are carried by the air, and will, of course, be found to be more plentiful in the vicinity of a victim of tuberculosis. A single bacillus may as surely induce the disease as the presence of a great number; and since we are at no time free from the chance of inhaling this germ, our safety lies in avoiding a "predisposition" to lung troubles. In order to determine whether the bacilli might be readily found in the air of the street, or of places of public resort, I had constructed the instruments which I how show to you.

The first apparatus I made was after the plan of an ordinary inhaler. The long tube passed into a little well at the bottom of the bottle containing glycerine, which was intend to retain any germs carried by the air passing through it; by rotating the bottle its sides were also smeared with glycerine, to give a still larger surface of glycerine for the contact of the air, which, after entering the funnel, was forced through the apparatus by using the pump. This was, undoubtedly, an effective germ trap, but the impossibility of drying the glycerine, which it is necessary to do in order to obtain microscopic proof of the presence of bacilli, obliged me to devise another method of obtaining them.

The second trap consisted of a brass cylinder containing a series of snugly-fitted steel discs. Each disc was perforated in such a manner that, when placed together, the openings formed a cone. Between each of these discs, across their openings, thin layers of pyroxylin were placed; the discs were then introduced into the cylinder, which was tightly fastened. To one end of the cylinder the pump connection was affixed, and the other end was connected with the funnel, which was placed over the ventilating tube, to take the air. When the pump was put in motion, it drew the air through the apparatus and necessarily through the veils of pyroxylin held in position by the metal discs, the pyroxylin thus serving to intercept the passage of any germs.

With this apparatus I visited a number of places of public resort, and, through the courtesy of those in authority, I was given free access to the parts of the establishments wherein the exit flues were located. These flues, in all instances except one, were placed in the ceiling of the auditorium and directly over the audience. Here I placed the funnel-shaped extremity of the apparatus, and its pump was kept constantly in motion until fifteen or twenty minutes after the audience had retired. This experiment was repeated a number of times at each establishment I visited.

The trap was then dismantled; the thin layers or veils of pyroxylin were removed from between the steel discs, and placed in the hands of Drs. E. O. Shakespeare and Morris Longstreth, for microscopic examination. These skillful microscopists have made the following report:—

PHILADELPHIA, Feb. 3d, 1885.

DEAR DOCTOR: — The specimens of pyroxylin (Nos. 1, 2, 3 and 4) which you sent to me to examine microscopically for the presence or absence of tubercle-bacilli, were variously treated. Nos. 1, 2 and 3 were separately dissolved in a mixture of absolute alcohol and strong ether. The collodion thus formed was handled in either of two ways: *a.* a thin film was deposited on a thin cover glass, such as is used in mounting of microscopic objects, and was stained in the manner recommended by Koch for the demonstration of the tubercle bacillus; or, *b.* the collodion was excessively diluted in a test-tube, by addition of relatively large quantities of alcohol and ether, and then allowed to stand for some hours, in order that suspended portions might fall to the bottom. The fluid was then carefully drawn off. The sediment at the bottom of the test-tube was mixed with a drop or two of sterilized beef-peptone-fluid, such as I keep in stock for bacteria-culture use, and was spread in a thin film upon a cover glass. This film was also treated in the manner above mentioned for the demonstration of tubercle-bacilli. I had, however, considerable trouble in following these methods. There was great difficulty in decolorizing the film; many times this seemed quite impossible.

In these three specimens of pyroxylin I found no bacilli-tuberculosis.

No 4 I determined to treat in another manner. I employed two different methods: *a.* I took portions of the pyroxylin and stained it, as I would do sections of tissue in which I wished to seek for tubercle-bacilli, namely, in the manner recommended and practiced by Koch, methyl-violet being the color used in the aniline oil mixture. These were subsequently mounted in balsam in the usual way without converting them into collodion. *b.* The other portions of the pyroxylin were stained with fuchsin as the color of the aniline oil mixture. After staining in the usual way, including the methyl-blue as a contrast color, the pyroxylin was placed on an object-glass for the microscope and converted into collodion by using a mixture of ether and alcohol. As soon as it was dissolved a thin glass cover was placed over it. This latter method, in my hands, was by far the most satisfactory.

In the portion of pyroxylin prepared by the "*a*" method I found two objects which, by their size, shape and color, had they been isolated and seen in sputum, I would have taken for tubercle-bacilli, but these objects were attached to fibres of pyroxylin which, in spite of the successive action of weak nitric acid and of strong alcohol, and in spite of the subsequent use of Bismarck brown as a contrast color, were also tinted violet. This observation must, therefore, be classed as negative, or, at least, doubtful.

In the portion of pyroxylin treated by the latter method, "*b*," I found, after painstaking search, one bacillus, which, on account of its size, shape, and quite characteristic color (bright red, the ground being blue), I had no doubt was a tubercle-bacillus. There were two other rod-like forms which in size and shape appeared identical with tubercle-bacilli, but the color which they showed was so indistinct that it could not be safely made out. I have to report, then, the finding of one tubercle-bacilli in the specimen marked No. 4. There were, of course, numerous other objects in all the specimens examined, but as you wished only to know of the tubercle-bacillus, I have thought it needless to particularize concerning them. Yours very truly,

To Dr. W. H. Webb. E. O. SHAKESPEARE.

PHILADELPHIA, Feb. 4th, 1885.

DEAR DOCTOR:—In compliance with your request, I inclose you the following report on the examination of pyroxylin from your germ-trap, in relation to the presence or absence of the bacillus of tuberculosis (Koch).

The material consisted of five small pledgets of cotton, contained in a small phial, sealed with paraffine.

The five portions were carefully kept apart and examined separately.

The staining method employed was that recommended by Koch: Aniline oil and fuchsin, bleaching with dilute nitric acid, washing with dilute alcohol, contrast stain with methyl blue (in some slides), and washing finally in absolute alcohol. The only variation made in this method of mounting as usually practiced, was in using a dammar medium instead of Canada balsam, which I have employed, since I have found that the dammar hardens more rapidly than the other. The examination of the specimens can be made with the oil immersions lenses more promptly, without the risks involved in displacing the cover-glasses, should the oil come in contact with the mounting medium. It was found by a preliminary examination that four of the five specimens of cotton were not likely to furnish any number of bacilli, and the further search among these four specimens was consequently abandoned.

The fifth specimen, labeled No. 1, engaged the sole attention of further examination, as it was composed of the cotton which first met the current of air as drawn through the trap.

The cotton was very much discolored by dust and other matter, particles of which could easily be shaken off from it. Care, however, was observed so as to lose as little as possible of these adhering matters.

The staining, bleaching and other steps in mounting were carried out by first placing the cotton in a watch-glass containing the aniline fuchsin stain and allowing it to remain, tightly covered, for twelve hours. Portions of the cotton were then thinly spread on a cover-glass, and the subsequent steps of the operation carried on in this position. It has been usual, I believe, in examining gun-cotton, to detect the presence of objects capable of being shown by a differential staining, to convert the cotton into collodion by admixture of ether and alcohol. This method I avoided, in the chief examinations, as being essentially faulty, since if the bacilli should be present in a dried film of collodion, it would be impossible for the staining agents to come in contact with the micro-organisms buried in the depth of the film.

Very considerable difficulties and much tedious searching were encountered in the microscopic examination, owing to interlacing and overlying arrangement of the cotton fibres. For although the strongest pressure was placed on the covers which the glass would stand—and many specimens were lost in this manner—nevertheless the depth of the material presented a field of much confusion. The confusion was somewhat lessened, but not removed, by adding another step to the process of mounting, viz., by treating the cotton after staining and bleaching with a mixture of ether and alcohol, for the purpose of converting it into collodion. While this treatment dissolved the cotton fibres, still some fibres of flax and wool were left. It did not, of course, help the confusion, due to large amounts of dirt particles which were present.

It was hoped that by thus making a collodion of the gun-cotton, after the staining process was completed, some advantages might be obtained. Such, however, was not the case. The examination of six slides from specimen No. I gave the following results:

Slide a. I bacillus, I doubtful.
" b. 6 bacilli.
" c. 3 "
" d. I bacillus.
" e. none.
" f. uncertain.

It is not intended to convey the idea that these were the only bacilli present. A very careful examination might reveal the presence of more organisms. For the uncertainty of the examination excuse must be found in the nature of the materials dealt with; the impossibility of rendering the layer of material of uniform thickness, as can be readily done with sputa and with sections of tissue; the very large amount of dust particles scattered through a layer of considerable thickness; the fact, also, which I have not seen alluded to previously, that many fibres of cotton have in them clefts, which retain staining material in spite of bleaching; many of these clefts closely approach in length and breadth the figures of the bacillus; and, finally, the short time which I have been allowed for the work since the specimens were placed in my charge for examination.

Yours very truly,
To Dr. W. H. Webb. MORRIS LONGSTRETH.

The layer or veil of pyroxylin through which the air from the flues first passed, seems to have stopped the passage of all germs and other atoms, and in this way acted as a trap, to the exclusion of the other veils of pyroxylin placed between the discs for that purpose. Unfortunately, the portion submitted to Dr. Shakespeare for examination was not the first layer, and to this may be attributed his inability to find more than one bacillus.

Furthermore, the number of bacilli found by Dr. Longstreth in the minute particle of the material he examined, seems to indicate the presence of vast numbers of these germs in the entire layer removed from the trap.

And now, in conclusion, I desire it to be understood that I have spoken, not so much to maintain a proposition as to reveal the truth; and that in giving you the opinions of those who have beaten a path wherein we may the more easily travel, I have but done justice to a class of men equally endowed as ourselves to observe and to reason from cause to effect. I would also state that the aim of this paper is simply to emphasize facts, leaving you to deal with them as your wisdom may dictate. A careful analysis of the writings and investigations of those who have given special thought to the subject which I have treated, reveals the fact that since the time of Hippocrates there has been a gradual but steady progress toward the grand beacon which now illuminates our way. The very slowness of the advance, the suspicion with which the announcement of every new development has been received, and the earnest criticism to which they have been subjected, insures the safety of our position to-day. Apart from the ocular demonstration of scientific investigations of modern times, and from a purely clinical standpoint alone, the weight of evidence as to the contagiousness of tuberculosis, must certainly be appreciated by you all. Even those who do not acknowledge it in words, proclaim it by their manifestation of doubt, and quiet avowal that there is something lacking which will enable them to fix upon the cause of a disease maintaining such marked characteristics from age to age, and among all people.

We are living in a scientific age, and the medical profession is thoroughly imbued with its spirits and import. We deal with facts, and are little inclined to give heed to that which is purely speculative. Such superstitions as the "Royal Touch," belong to a departed age. "Coincidences" and "Happened so's" serve no longer to answer our inquiries concerning the causes or nature of disease. Never before have we been so well established in respect to the means and methods of making research and experiments in the domain of medicine, and never before have the searchers after its truths been more earnest in their efforts or more hopeful of grand results. The discovery of the tubercle-bacillus is a scientific fact; all, with the same facilities, may see what others have seen. It is the one thing tangible, describable, known by its peculiarities among entities as readily as one individual is known from another. To doubt its existence in tuberculosis, is to doubt the utility of scientific medical research, and to abandon further progress to the unstable dreams of theorists. The sputa of the phthisical contain these germs; the air they exhale is loaded with them or their spores, and their introduction into the system of animals will always produce tuberculosis, *while nothing else will.* These are not speculations, but demonstrable facts! Furthermore, clinical observations go to prove conclusively, that healthy individuals, living in an atmosphere contaminated by the phthisical, will contract this disease, and not any other which might be due to a lowered vitality, from being in close quarters and breathing a vitiated air. That there is yet much to be learned in regard to the tubercle-bacillus, there can be no doubt. Still, having made a wide breach in the walls that hemmed in the mystery of tuberculosis, it behooves us to press on to its complete solution.

And now, Mr. President and Fellows of the College, my remarks on the question at issue are, for the present, at an end; but I feel that I would be recreant to the cause I have espoused, did I not avail myself of this opportunity to state that, in more than one instance, in articles recently published, the non-contagionists, it seems to me, have willfully, unhesitatingly, and without warrant, perverted the language, even absolutely falsifying the statements, of authors they quote in support of their cause. That such reprehensible practices should be resorted to, for what must necessarily be but a momentary triumph, is of itself strong evidence of the vulnerability of their position, and requires no word of condemnation from me; nor would I think proper to notice it at this juncture, were it not to point out the necessity for all conscientious investigators to verify every and all citations by referring, wherever possible, to the original documents. And if my feeble efforts have, in the slightest degree, advanced the cause of truth and humanity, my labor has not been in vain. Now—

"Say as you think, and speak it from
your souls."
"What you do
Still betters what is done."

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illoway, Cincinnati, Ohio.

TREATMENT OF DELIRIUM TREMENS WITH STRYCHNINE.

DR. LARDIER, of Rambervilliers, reports having cured a most violent case of delirium tremens by the administration of sulphate of strychnine in the enormous dose of 108 *millegrammes* (1 *milligramme*=$\frac{1}{70}$ gr.) *in twenty-two hours.*

It is to Professor Luton, of Rheims, that we are indebted for this powerful therapeutic measure. Strychnine is without doubt the best remedy we have at our disposal against alcoholism; it is almost a specific. Generally, no such large doses need be used. We have many times seen Prof. Dujardin Beaumetz obtain in a few days a sedation of subacute alcoholic accidents by the hypodermic injection of sulphate of strychnine, two centigr. once or twice per day.

The case of our colleague of Rambervilliers was a most acute and threatening one, and we conceive that he was compelled to use a dose apparently so excessive. Besides M. Lardier says: "I have reached the state where, thanks to the many cures I have obtained, I administer the strychnine to my alcoholic patients without rashness, but without fear, being convinced that, whatever the dose that may be necessary to obtain a therapeutic effect, no accident need be feared, when the administration is under proper surveillance." Defending himself against the accusation that he had, in the case mentioned, given an exaggerated inconsiderate dose, Mr. Larder adds. "The dose has remained for me a therapeutic one, because I did go beyond the effect desired, sought for. It is my conviction that a substance administered to *a patient* does not reach its therapeutic dose until it produces in the latter, all doses being equal, the effects which have been demonstrated on the healthy being." Our colleague was careful to administer but small doses at a time, five milligrammes being given every hour, and it was only after the administration of 100 milligrammes in pills, and 78 milligrammes by hypodermic injection, in twenty-three hours, that the delirium tremens yielded, without there being the slighest manifestation of the strychnine.—*Union Medical, Canada.*

HYSTERICAL FEVER.

A communication of Dr. Debore, to the Medical Society of the Hospital.

Until now the existence of hysterical fever has been denied by nearly all the authors. Nevertheless, I have observed a certain number of facts which plead in favor of the contrary opinion. Most frequently, if it be observed in a patient at the hospital, we admit the existence of latent tuberculosis, the physical signs of which are, as yet, not appreciable, but this hypothesis can not be sustained when we make the same observations in our private practice in patients whom we have attended for years.

The fact I desire to communicate to you belongs precisely to this category. It is the case of a young girl whom I have attended for the last five years. She is twenty-four years old, and has been hysterical since her seventh year, and has present successively all the possible accidents of this neurosis, paralysis, contractures, grand attacks, etc. It must be remarked that, outside of those, she presents no psychic troubles. She is very sensible and intelligent.

It is now about three years ago that this patient presented, for the first time, a febrile attack, with the two well-marked periods of chill, of heat, of perspiration. A careful examation of the principal organs afforded no clue as to the cause of the fever. Since that time the temperature of the patient has been regularly taken every day, the thermometer has never stood lower than F. 100°—.4, and sometimes it has reached a higher figure. I first attributed these attacks to malarial poisoning, because the patient had sojourned for a time in Italy, in a part of the country where the fever is endemic; but I was compelled to abandon this idea, because, on the one hand, the quinine had no perceptible effect on the progress of the fever, and on the other hand, because, in spite the fever, the patient showed no cachexia. I was also inclined to believe, at the outset, that there was a latent tuberculosis, whose gradual development I should observe, but, at the present time, her state of health is such that such a view is altogether out of the question. I do not believe it necessary to add that I have placed myself in such a position as to be able to affirm that simulation can not be invoked here.

One of the attacks of this patient lasted fourteen days, during which the thermometer vacillated between F. 104°+ and 105°+. The pulse beat 120 to 130 per minute; at the same time she suffered from headache and was anæmic. The sulphate of quinine having proved inefficient, I prescribed antipyrin, and the fever abated suddenly. Nevertheless, I would not conclude that this substance really caused the cessation of the fever.

In the presence of this fact, it seems to me difficult not to admit, by exclusion, that we have here, in this case, a hysterical fever. At different times I have observed similar facts, but for too short a time to draw any conclusions therefrom.

The preceding fact is, however, safe from this reproach.

I do not see what theoretic objection can be opposed to the existence of an hysterical fever; I do not know of any single fact, physiological or pathological, that should cause its rejection. The conditions capable of acting upon the the thermic centers, are they not all present in hysteria?

Besides, I have tried to reproduce the fever by suggestion, as is done for the other accidents of this neurosis. I have made some of these experiments upon a certain number of subjects of both sexes; and, taking care to guard myself against deception and other causes of error, I have obtained, in a majority of cases, an elevation of temperature varying from ½° to 1½°. I attempted to bring on a chill by suggestion in the same subject; in these latter cases the results were contradictory. But it seems to me that these experiments may be invoked as a new argument in favor of *hysterical fever.—Union Medical, Canada.*

TREATMENT OF THE PUERPERAL STATE BY THE INTRA-UTERINE APPLICATION OF IODOFORM.

In an interesting article published in the Archives of Gynak, Dr. Emil Ehrendorfer has given an interesting account of the method of treatment of the puerperal state, which might be called the Vienna method, and which is based upon the antiseptic action of iodoform.

Gynecologists, careful observers of puerperal prophylaxis, are agreed upon the indispensability of antiseptic irrigation of the uterus after every introduction of the hand or of instruments into it. In order to obviate the inconveniences of frequently repeated maneuvers for the purposes of irrigation, Vienna accoucheurs have sought to guard the uterus against infection during the whole puerperal period by the use of a topical agent, and they have resorted to iodoform.

Does this substance act directly as a destroyer of the microbe? or does it act through the surrounding media, only preventing their pullulation? This has not yet been clearly determined. The results of this plan have, however, been at all times satisfactory.

The quantity of iodoform that can be introduced into the uterus without fear of toxæmia is about one hundred grains. Koenig and other authors maintain that this substance is inoffensive as long as the quantity of 180 grains is not surpassed. Kowalski, who has assured himself of the therapeutic effects of this agent in 326 cases in his own practice, has never noticed any toxic symptoms from the daily use of 100 grains.

This medicament is employed in the form of suppositories, five to six centimetres long, which are introduced and directed toward the fundus of the uterus.

This is the formula:

℞—Pulv. Iodoformi, . . .	360 grains.
Gum Arabic, . . .	
Glycerine, ...	
Amidon (Starch), . . .	āā 36 grains.

Make six suppositories.—*Union Medical, Canada.*

CARDOIPATHIES OF THE MENOPAUSE.

Dr. Clement places this affection in the group of cardiac diseases described by See, under the head of Functional Diseases; he has consulted various authors in vain to find some mention of this disease; only William Stokes says a few words thereon.

As to the pathogeny the author sums up as follows:

"In consequence, perhaps, of a disposition specially created by the menopause, there occurs first a profound modification of the innervation of the great sympathetic; or, perhaps, the origin of this modification is a reflex action, originating in the sexual organs. Whatever it be, it manifests itself by an excitation of the acceleratory nerves, and by vascular spasm.

To this nervous influence there is soon superadded that of anæmia, which contributes to aggravate from that time on the disorder. By the aglobulie it brings about acceleration, augmentation of the palpitations and favors infiltration of the integuments. By the anæmia of the medulla oblongata it augments the dyspenœa, and, causing the moderator center to lose its power, it allows, so to speak, the excitation of the acceleratory system to act without a counterpoise.

Thus we find a coalition in the same organism of the the most powerful causes that can, outside of valvular disease, disturb the cardiac functions. The disorders arising from this coalition attain their maximum intensity, and are comparable only in their violence, to those dependent upon an anatomical lesion.

Is it astonishing, then, if some observer, uninformed on this point, should confound these functional with organic diseases of the heart?

Digitalis is the heroic remedy to combat these diseases. In the first attacks, an infusion of the powdered leaves should be given in the dose of fifty centigrammes the first day, then 40 centigrammes, then thirty, and, at the end of a week, the trouble has, in most cases, disappeared. When the patient can not bear digitalis any longer, the author employs a hydroalcoholic extract of convallaria maiahs, in the dose of one gramme to one and one-half grammes. But it is less active than digitalis, and he has almost always been compelled to return to digitalis, selecting this time Trousseau's formula.

Against the paroxysms of dyspencœa he employs the opiates, especially morphine. During the remissions he administers tonics.

Finally, the patient should abstain from all movements and all acts that could exaggerate the cardiac activity.—*Arch. de Tocolog, Un. M., C.*

Selections.

Detroit Academy of Medicine.

MARCH 3, 1885.

DR. CONNOR introduced a patient of whom he gave the following history: This patient came to my notice on the 23d of last month. He is a tailor by occupation. Until the present attack, six weeks ago, his health was good. A few years ago he had a urethritis, which might have been something more. The present attack is one of a partial paralysis of a number of nerves. The right side of the face was especially affected, the skin being numb, the muscles of the eye except external rectus paralyzed, the sense of taste impaired, etc. Owing to the strabismus due to the paralysis of the ocular muscles, there was double vision, the eyelid drooped, the pupil was dilated and irregular from adhesions, vision $\frac{3}{200}$. The tongue could be protruded but with difficulty. The patient could not eat solid food. Taking my clue from the history of urethritis, I gave him iodide of potassium, iodide of mercury and iodide of iron. The patient did not make as rapid improvement as I could wish, and after four days, I gave him in addition to the mercurial treatment pilocarpine subcutaneously. Yesterday I found vision $\frac{20}{70}$; pain in the head diminished. The case is interesting from the large number of nerves involved. The lesion must be back of the Casserian ganglion. The effect of the treatment thus far gives reason to hope for absorption of the inflammatory product and ultimate recovery. The patient is deaf in the right ear. The cause of the trouble may have been a localized meningitis.

Dr. Noyes: It is seldom that we see so many nerves implicated as here About the only remedies that will be of any use are mercury and potassium iodide. In one syphilitic case I treated, in which the third pair of nerves was involved, I made use of mercury by inunction, under which the patient rapidly improved.

Dr. Connor: Ophthalmoscopic examination shows no abnormal appearances. The only movement of the eye is outward.

WRITTEN COMMUNICATIONS.

Dr. Farnum read a report on Tuberculosis, dwelling especially upon its etiology, and its connection with the bacillus tuberculosis. (See *Lancet*, May, 1885, p. 489.)

Dr. Andrews: The theme of the paper is one of the most practically interesting subjects now before the profession. The pursuit of the study is so largely the work of experts, that our conclusions necessarily wait on the progress of scientific discovery. It is useless for us at present to attempt to dogmatize. That there is a bacillus peculiar to tubercular disease, appears to be pretty well established—almost as certainly as that there is similar organism constantly present in anthrax. Whether the bacillus is to be regarded as causative or not, is, however, not yet decided. If it could be proved, it would be a long step in advance, pointing not only to greater certainty of diagnosis, but to a hope that we may by and by find a rational and successful treatment for this insidious disease. If it shall be established by experiment that tuberculosis is in truth a contagious disease, we may take courage from the history of the past, which shows how the contagious diseases that once swept away whole communities, have either wholly disappeared from the civilized world, or have ceased to be regarded with dread. I have examined with a good deal of interest a number of cases of consumption, with reference to the presence or absence of the bacillus. I have not always found it where it was to be expected. In one case of laryngeal tuberculosis, I examined the sputa repeatedly in vain. But, although I did not find the bacilli, they were really present, for a port-mortem examination revealed the fact that the lungs also were diseased, and, although there had not been as yet any breaking down of tissue, the incipient abscesses throughout the lungs were swarming with bacilli. In other cases, however, where the sputa were purulent, and contained fragments of lung tissue, I yet sometimes failed to find bacilli. Sometimes there would be now and then found bacilli in abundance, which at other times would seem to be wholly absent. In one instance, when the symptoms did not indicate the existence of serious lung disease, bacilli were found in multitudes in the sputa the first time we examined them, although we found but few in subsequent examinations.

Dr. Connor: I am not an expert microscopist. I am not, therefore, in a position to say anything. The subject, however, is one of great interest, in view of the fact that one-sixth of all the deaths in Michigan are from tuberculosis, and in the New England States the ratio is even greater.

From what I read, it appears that the German Government is about to repeat in this century the action taken in the last by the Italian Government, to protect the people from the contagion of this disease. In Italy a hundred years ago the consumptive was banished from society as completely as the leper.

A few years ago Dr. Formad reported as the result of numerous examinations made in the hospitals of Philadelphia, with a view to ascertain whether there was any peculiarity distinguishing tuberculous and scrofulous patients, that he found in this class of patients a certain inadequacy in the lymphatic system, which, to him, seemed to furnish a clue to the nature of the disease.

His theory seemed not only to explain the character of the malady, but to justify as rational the mode of treatment which experience has shown to be most successful.

A study of tuberculous eyes, reported in the *London Ophthalmological Review*, failed to reveal the presence, in the tubercular matter within the eye, of bacilli. In fact, the relation of the bacilli to tubercular deposits may be similar to to that of the carrion crow to the dead horse—more in the nature of an effect than of a cause.

If it is true that tuberculosis is produced by bacilli, we are no nearer than we were before to a cure. We are told that these bacilli have an astonishing tenacity of life; there is no way of destroying them without fatal consequences to the patient. This does not seem to me a hopeful prospect for the rewards of scientific research.

Dr. Lyons: Science seeks only to know the truth. If consumption *is*, as experience has shown, an incurable malady, it can do no harm to understand why it is incurable. Let us learn all we can by the aid of the instruments of research which science offers us; we shall see many of our favorite theories overthrown—many fanciful explanations of the action of remedies (real or fancied) must be given up with the widening of our positive knowledge. It is easier to cling to the old fancies, which are in a sense justified by the results of experience, but it is wiser and more manly, and more profitable, too, to put by all prejudice, weigh impartially the evidence and then shape practice, not by drawing conclusions from the hypotheses of science, but using those hypotheses merely as means of grasping the facts, by the old-fashioned method of rational empiricism.

Dr. Noyes: The alleged facts in regard to the germs or micro-organisms that are now believed to cause disease are not yet established. Dr. Klein says that in India the tanks from which the people draw their water are swarming with the comma bacillus to which Prof. Koch attributes cholera.

Dr. Farnum: According to the most expert examiners, only about 50 per cent. of those affected with tuberculosis show in the sputa the presence of bacilli. The tissues must be broken down. The communication of tuberculosis by injection of an extremely minute portion of the pure culture of the bacillus affords proof positive of the causative relation of this organism to the disease. Virchow has admitted that the disease produced by the injection of non-specific matters is not true tuberculosis. Formad's theory might account for the production of disease by the entrance into the system of non-specific foreign substances, as in the case of miners' consumption, etc.

Dr. Connor: Why is it that so few of those who are exposed, as nearly all of us must be, through abrasions of the mucous membrane of the throat, become tuberculous?

Dr. Farnum: It is not easy to answer. It may be that the temperature, at the critical period, is too low. The bacilli require, for propagation, a temperature of at least 95° Fahr.

VERBAL COMMUNICATIONS.

Dr. Jenks: I would like to report a case. Last Saturday evening I received a dispatch asking me to come at once to see a patient out in Canada, and to bring obstetrical instruments. I found three physicians in attendance—Dr. O'Keefe, Dr. Abbott and Dr. Brady, of Chatham. The patient had been in labor since three o'clock in the morning, but delivery was obstructed by intrusion into the pelvic canal of the hip-bone, the result of an injury which the patient had received. Previous to the injury she had given birth to one child. The head presented, but would not engage in the superior strait. Attempts had been made to apply the forceps, but without success. The cord being down, and the child dead, the physicians had perforated the head, but yet had failed to cause it to engage. Morphine had been given, to allow the patient to rest somewhat. It had been decided that delivery could not be accomplished except by cæsarian section. I tried myself to bring down the head by the use of the hook, but neither with this nor with any other instrument could I accomplish anything. The child did not seem to be lying in the usual position, but appeared to be stretched at length, giving the womb an unusually elongated form. I was convinced that the operation of cæsarian section afforded the only possible chance of saving the woman's life, and so, at about three o'clock Sunday morning proceeded to operate. I had to begin my incision near the ensiform cartilage, the womb was so elongated. The uterus looked as if it had been bruised in spots, and was unusually vascular. In cutting down I came upon the placenta, and hæmorrhage was very profuse. In removing the child, the uterus was torn down quite to the bladder. The hæmorrhage was excessive. I was obliged to put in eleven sutures, then sponged out the cavity of the peritoneum, and closed the external wound with deep and superficial sutures. The patient rallied well from the operation, and I left her in a comfortable condition, but I was not surprised to receive word that she died yesterday morning, having survived the operation two days and two nights.

Adjourned.

MARCH 10, 1885.

Dr. Wyman: Dr. I. H. Hamilton, of Tecumseh, has for many years practiced uterine massage and has by this means treated successfully many cases in which other modes of treatment had been unavailing. In his manipulations two or more fingers of one hand are introduced into the vagina, while the other hand is applied to the abdomen of the patient. The experiments of which Dr. Sprague gives an account, showing the effect of massage to reinvigorate muscles exhausted by protracted use, are not conclusive, unless so conducted as to eliminate the elements of imagination and will.

Dr. Cleland: The use of massage in connection with electricity, as described by Dr. Sprague, I think likely to be of service. Such difficulties as lumbago are benefited by friction, and electricity is also in the same class of cases a remedial agent of acknowledged value. A judicious combination would no doubt be better than either one alone.

Dr. Connor: I remember that when I was quite a boy, there was a man living in the same neighborhood who used to cure headaches by manual manipulations upon the head. His mode of practice was at that time novel, but is now common, and very frequently successful. The physician often meets with cases where there has been a disturbance in the equilibrium of the circulation and of nutrition. Some muscles or tissues are doing more than their share of work, others less. To restore the equilibrium, I take it, is the object of the operations that have been described in the paper read. We have recognized the value of these operations, but in this city, until recently, there has been no one to whom we could refer our patients when in need of this kind of treatment. About eight months ago I read Pagenstecher's observations on Massage of the Eye. I have practiced it since to some extent, and in a large number of cases with satisfactory results.

Dr. Emerson: The subject of the paper is one that has always been of interest to me. I was brought up in a country where massage was practiced as a remedy for nearly every ill that flesh is heir to. All manner of aches and pains, even old sprains and anchyloses, etc., were treated, and with astonishing success, by the *lomilomi*, as it was called. The treatment was not scientific, and yet embodied the observations of generations of empirical specialists. The manipulations were varied to produce different effects. To cure a headache, stroking, with or without pressure, was employed; for the relief of weariness, kneading of the muscles, so as to stimulate the circulation, and aid the process of nutrition and repair, was the method in every-day use. Again and again, I have experienced in my own person the recuperating influence of this operation. It not only removes the sense of weariness, but it prevents the lameness and soreness that would otherwise be felt after severe and protracted labor. Among the Hawaiian chiefs the lomilomi was resorted to also as an aid to digestion, after gluttonous indulgences.

What was said about electrical massage recalls a case of my own which illustrates some unusual effects of such a mode of treatment. My patient, from long use of opiates, had become obstinately constipated. I anticipated relief from this difficulty in the use of electricity in combination with massage, and I was not disappointed in this. The method pursued was this: I placed the negative electrode on one side of the abdomen, and with the free hand applied the faradic current, along the course of the colon, at the same time kneading the abdomen gently. The immediate effects were such as I anticipated, but the patient sent for me soon after in considerable alarm, finding herself strongly electrified, and this condition lasted several hours. I have never seen a similar instance, and am at a loss to account for the effect on any principles of physics with which I am acquainted, and it seems hardly sufficient to say, vaguely, that it may have been the result of imagination. The patient would scout such an explanation.

Dr. Jenks: I have had some experience with massage, having made use of it in my private hospital, and I have obtained pronounced benefits from it. I have not found massage of the uterus of any great value. In many neurasthenic patients I find that general massage is very useful. I have employed in connection with it also the galvanic current, applied by means of the electrical brush.

Dr. Noyes: I have been following up with interest the accounts of the use not only of massage, but of other similar modes of treatment, such as the Swedish movement cure. When in Berlin, I visited Prof. Behrens' institution, in which the exercises of different parts of the body were made a special study. The Professor would write regular prescriptions for his patients. In the gymnasium there were all sorts of appliances to bring into exercise the various muscles. Some cases were treated by confinement to certain positions, by mechanical appliances, etc. Thus curvatures of the spine were often remedied. Photographs of the patients taken when received, and again when discharged, were preserved, showing strikingly the beneficial results of treatment. Cases of torticollis were here treated successfully without operation.

In considering any of these modes of treatment we must make allowance for the influence of imagination, or of the mesmeric influence, if you please. I have seen most remarkable instances of the curative effect of psychical influences, and I can credit almost any statement in regard to the effects of any given mode of treatment given a patient reposing in the physician implicit confidence in his resources, ability and skill.

Retinal Hemorrhage in Malarial Fevers.

BY EDWARD W. JONES, M.D., NEW ORLEANS, LA.

My attention having been called to the frequent loss of sight in patients suffering from malarial fever, I have given the matter special attention, and have kept a complete record of all cases which have come under my observation and treatment for two years past. I had noticed that when there was a loss of sight sufficient to call the patient's attention, I have invariably found hemorrhagic extravasations in the retina. I have searched all literature that was in my possession and found only one author that refers to it, and that is W. R. Gomers, M.D.

The patients as a rule are not subject to these hemorrhages until they have been sick for a week or more, and then the loss of vision comes on suddenly. There is usually nothing abnormal on inspection, but the moment that the ophthalmoscope is used, the diagnosis is easy. I will give the history and treatment of five cases, taken from my note-book, which will serve to illustrate this condition:

J. M——, a merchant, married, aged thirty-four years, went out hunting in November, in the swamps; was absent two nights and days. One day, after returning home, he had quite a severe attack of malarial fever, of remittent type; was given quinine by the family physician, and in five days was apparently well. On the sixth day patient suddenly lost his sight in the right eye, and becoming very much alarmed, sent immediately for his physician, who called me in consultation. The eye, to all appearances, was perfectly normal. On examination with the ophthalmoscope I found three large striated hemorrhages above the nerve, along the course of the large blood-vessels and a round one covering the yellow spot. There was no central vision in this eye, but at both sides of the eye it was $\frac{6}{cc}$. The left eye was normal. Patient was put on iron and ergot in conjunction with the quinia. The hemorrhages have faded gradually away, and only a few shining spots remain. The vision is now $\frac{20}{xxx}$.

In the three following cases the patients were laboring men, who had been working on a railroad in Arkansas; they were all yonng men and had been sick for three weeks. Two of them had many small hemorrhages in both retinæ, and the third one had one large extravasation between the nerve and the yellow spot in the left eye, but none in the right; this patient had quotidian ague. There was considerable optic neuritis. The first two patients recovered rapidly, and the hemorrhages all disappeared; whereas, in the third case, recovery was very slow. His vision in the beginning was fingers at three feet, and now, at the end of four months, is $\frac{20}{cc}$. His general health is very good, and has been so ever since, after his first attack of fever.

The last case was that of a German woman, aged thirty-seven years, who had been suffering with malarial fever for a week, but had taken no medicine until her physician was sent for at this time. Her case, he said, was a mild one; but she said she had lost her sight in the right eye. On examination with the ophthalmoscope, I found many hemorrhages along the course of the larger blood-vessels—the disc presented a pale appearance and the blood-vessels seemed to be almost empty; there was also an extensive hemorrhage in the vitreous. Vision was, fingers at two feet; on the third day the whole of the retina became hazy, but the vitreous remained about the same. Patient was put on the same treatment as already mentioned. This occurred some fourteen months ago; there now remain some small dark spots where the hemorrhages were, the optic disc is white, blood-vessels diminished in size, and there is well-advanced atrophy. Vision, when first seen, was fingers at two feet; now it is $\frac{10}{cc}$. Patient left the city for some six or eight months and went North. Her general health is now perfect. The sight in left eye is $\frac{20}{xx}$. Out of some twelve cases, this is the only one resulting in atrophy, and I suspect that the patient had attacks of malarial fever before this last one.

The remaining cases that came under my treatment showed nothing remarkable, excepting that some recovered much more rapidly than others. If put on quinine alone, without the ergot and iron, recovery was much retarded. There being nothing abnormal on inspection in these cases, I am led to believe, and am of the opinion, that hemorrhagic retinitis is much more common than the general practitioner is aware of, and if the ophthalmoscope were used in those cases where there is loss of vision in malarial fevers, hemorrhages in the retina would be found in the large majority of cases.—*Med. Record.*

The Relation of Skin Diseases to Marriage.

Read before the St. Louis Medical Society, April 4, 1885, by A. H. Ohmann-Dumesnil, A. M., M. D., Prof. of Dermatology and Syphilis, St. Louis College of Physicians and Surgeons.

Marriage and syphilis have been so thoroughly discussed and so much attention has been paid to it, not only by syphilographers, but by the profession in general, that all the phases of the question have been considered. Despite this, all authorities are by no means united in their conclusions, although all agree that, during certain stages of the disease, marriage is entirely precluded. That syphilis is hereditary and transmissible is acknowledged by all who have had any experience whatever in the observation and treatment of the disease. Those physicians who have paid any considerable attention to insanity and affections of the nervous system, claim for many forms of the neuroses, if not a direct transmission, at least a hereditary tendency to the same or allied forms of nervous lesions, derived from one or both parents. Rheumatism, gout, hemophilia, phthisis and a number of other general affections are accused by a number of experienced writers to have that power in them by which the parent will hand down the peculiar susceptibility to those diseases to his unlucky progeny. On the other hand, some very respectable authorities deny heredity as such, whilst acknowledging that the physical weakness is perpetuated.

A few of the more common, and at the same time, most troublesome diseases of the skin will be briefly noticed in this paper, and an attempt made to point out the probable chance of their reappearing in the offspring, together with the reasons why patients suffering from certain dermatoses should, if not entirely give up marriage, at least postpone that relation until circumstances justify such a course. As a prefatory remark, it may be stated that it is not necessary for the mother or father to be the recipient of the trouble from the consort in order that the child may be the subject of the disease.

It is not the local manifestation of the disease that constitutes the active factor, but rather the general condition of the entire economy of one of the progenitors, which has undergone certain more or less profound changes which manifest themselves more or less distinctly upon the external surface of the body as a sort of danger signal, and generally there are certain appearances connected with these lesions that, to him who can read, constitute a fair index of the severity of the existing condition.

It is manifestly obvious that a person suffering from an infectious or contagious disease should not marry during the active period of the disease. No one afflicted with any one of the parasitic diseases would object to submitting to a proper course of treatment before marrying. But there are some troubles of the skin which, although we may admit that they are neither contagious nor directly transmissible, or only rarely so, are sufficiently dangerous in this respect to awaken our attention and deserve more study. It will be noted that the extreme views of the French and German schools of dermatology have been avoided, as we are not willing to admit, on the one hand, the universal constitutional nature of all dermatic affections; nor will we, on the other, concede that they are all purely local, and due, almost without exception, to external causes alone. For this reason, whatever authorities we have consulted are chiefly those occupying what we consider a most rational position, which is one situated midway between the two extremes, and from those who are willing to let theory bend to facts.

The object of these few remarks is not so much to uphold a theory as to inquire whether there may not be enough in the question of the heredity of skin diseases or the predisposition thereto, to make it of some moment to the medical practitioner who may be questioned as to such being a bar to marriage.

Eczema is by far the most common, and, unfortunately, it often becomes the most intractable, of the troubles afflicting the skin. When first studied, the disease was, for a long time regarded as purely local; then it was admitted by a large number that it might be somewhat dependent upon internal causes. Its heredity was denied *in toto* at first. We find that, later on, in speaking of the etiology of this protean disease, some authors acknowledge having seen a few—a very few—cases which they considered hereditary. The latest work on the subject, and one which we, as Americans, are proud to point to, is Bulkley's sterling work. He says (second edition, p. 93): "But, on the other hand, although the disease appears to come by direct inheritance in but a very few cases, it is still true that in a certain number it is seen to be hereditary, and whole families are sometimes affected, not only in one generation, but in several." . . . Again: "Strofula or struma undoubtedly appears as a predisposing cause of eczema in the way of inheritance quite as effectually as when existing in the individual." Van Harlingen, Piffard, Liveing, Duhring, E. Wilson, and even Neumann, acknowledge that, in some cases, this disease is undoubtedly hereditary. There is also a greater probability of its being transmitted if it exists as an old chronic and intractable form of the disease in the parent.

The next most common affection which we meet with in practice is, no doubt, psoriasis. This disease is acknowledged by all authors of any prominence to be hereditary. It is contended, however, by a number of recent observers that the heredity is more marked, or more liable to be seen, if one or both parents have had the disease in a marked and recurrent form. In those cases in which it assumes the "universal" form, it is pretty certain that the offspring of the affected parent will either exhibit the same disease or some allied cutaneous affection.

Lupus vulgaris, whose pathology is as yet involved in more or less obscurity, is another one of these dermatic affections which would seem to be transmitted from parent to child. We will not inquire whether the neoplasm which constitutes it is scrofulous, tubercular, or of some other origin. Any one of these causes is sufficiently impressed upon the constitution of the progenitor to involve that of the progeny by direct inheritance.

Ichthyosis, especially of that variety known as "ichthyosis hystrix," is undoubtedly a hereditary affection, or rather deformity. There is no single author who has ever observed any number of cases, limited though it be, who has not immediately had his attention called to this important fact. It would be useless here to refer to the *dicta* of the many dermatologists who have expressed an opinion upon the subject. The disease is undoubtedly the most markedly hereditary one with which we are acquainted.

Lepra, or true leprosy, whether it be dependent upon a bacillus or not, is transmissible from parent to child. Although no well-authenticated cases exist to show that it has been acquired by contagion, or that its bacillus has been successfully inoculated, examples of its occurrence in families which have continued leprous for several generations are numerous and well attested. Whether the primary cause be climatic or parasitic, the fact of its heredity remains.

Chronic pruritis has been observed in a mother, her daughter and granddaughter, as detailed in the *Journal of Cutaneous and Venereal Diseases*, February, 1885, by Dr. Wm. J. Maynard. An interesting fact in connection with this is that the male members escaped.

Sarcoma and carcinoma of the skin are further examples —of a malignant type of disease—of dermatoses which are transmissible from generation to generation.

The writer has observed cases of vitiligo in which the trouble was transmitted to the offspring apparently. Not only was there a reappearance of the disease in the children, but all were affected in a manner similar to that of the parent, and identical parts were the first to be involved in the process.

We know well that the color of the skin is very susceptible of being transmitted to the children, and we daily observe such as the result of mixed intercourse. Each race has certain pigmentary peculiarities of skin which, by some process or other, seem to be stamped upon the child to a greater or lesser degree. In certain families we find that a lock of white hair, in a particular locality, is transmitted from generation to generation, just as other peculiarities or deformities are. Often, again, whole generations escape, and the "sign" reappears upon a remote descendant, showing that although this peculiar force may become latent, it does not necessarily lose any of its strength on that account, as all those acquainted with the facts of atavism know.

A cursory glance at these various examples would seem to indicate that heredity plays but a very unimportant part in the genesis of skin diseases. But when we take into consideration the small amount of care taken, not only to trace diseases back to their origin, but also the inability to follow the various successions through different generations, the amount of evidence offered acquires more force than would be at first accorded to it. Besides this, the cause can often be recognized as being some condition which has shown itself in different ways, and only evidences itself as a skin disease in the last member of a long line of individuals. Were our observers to pay more attention to this subject, there is no doubt whatever that the *rôle* played by heredity would be found to be much more important than it is regarded at the present time.

As a natural conclusion it will follow that, if certain skin diseases are directly transmissible, or if the causes thereof are, marriage between individuals affected with these troubles, whether the disease be confined to one or both of the high contracting parties, should be very carefully considered, if not prohibited. Before permitting such a union to take place, the dermatic genealogy should be carefully examined and all the possibilities conscientiously weighed. The intention of this paper is to call attention to a few isolated facts and to direct observation to a new point in connection with the etiology of skin diseases which may prove serviceable in the prevention of a number of the most intractable and chronic affections which afflict the human skin. There is no doubt whatever that the more these relations are sought after the more often will they be found, and enable the physician to give safe and reliable advice in those cases where it will be needed or sought.—*Journal of Cutaneous and Venereal Diseases.*

Medical Society of London.

Monday, April 20, 1885, W. M. Ord, M. D., President, in the chair.

Treatment of Gangrenous Intestine.—Mr. Mitchell Banks read a paper on the treatment of gangrenous intestine in strangulated hernia, and related a successful case of resection of the small bowel. He observed that the all-important question in strangulation with gangrene, was the plan upon which the gut should be treated. Resection was an operation which was only rarely possible, but as an illustration of the class of cases to which it was applicable, he related the history of a young man who was admitted into the Liverpool Royal Infirmary, on November 7, 1883. He was a well-nourished, strong man, aged 23, who had long noticed an inguinal hernia; this had always been easily returned, until it descended, three days before admission, when at sea. Taxis had been applied by a surgeon, and very violently by the patient; the tumor had also been aspirated. When admitted, he was tranquil; the pulse was 80, and there was no fever. He suffered, however, from constant retching, and the scrotum was livid, swollen, and had bullæ on the surface, and there was œdema of the penis, so that the case looked, at first sight, like rupture of the urethra. It was found that the hernia was congenital; the sac contained a dark, bloody fluid, and in it was a long loop of small intestine, swollen, black, and covered here and there with lymph; it had an offensive odor, and was distended with sanguineous fluid. The stricture was produced by the external ring. On pulling the gut down, it was found that—doubtless owing to a second stricture at the external ring—the gut had ulcerated through higher up; the sac was thoroughly cleaned, and covered by a guard of carbolized gauze. The gut was then pulled down until healthy gut was reached, and the gangrenous portion excised; a wedge-shaped piece of mesentery was also excised; the mesentery contained extravasated blood, and the glands were swollen; the bleeding from the mesentric vessels and the gut was most profuse, and the necessity of tying a large number of vessels much prolonged the operation. The peritoneum of the mesentery was united by a continuous suture of catgut, first on one side and then on the other. Then the ends of the gut were turned inward for about a third of an inch, so that peritoneum should come against peritoneum; interrupted stitches were put in all the way round inside the bowel, bringing the inverted edges together. On the exterior, a continuous suture was taken all round, passing only through peritoneum. This was practically what went by the name of the Czerny-Lambert suture. The most difficult part was just along the mesentric attachment, where a small area was undiscovered by peritoneum. He thought the fingers of an assistant were better than any instrument for facilitating the introduction of the stitches. Owing to the increase of bulk caused by the inversion and stitching, the bowel could not be reduced until the inguinal canal was freely incised; the sac was tied and removed, leaving only a portion below in relation to the testicle. The operation occupied over two hours, and the patient, at its conclusion, was in a state of collapse. He soon rallied, and, ten hours after the operation, he passed flatus; the temperature fell normal several times during the first four days, and only a few occasions subsequently rose above it. The lower part of the sac was left to form the tunica vaginalis. The most important point in the after-treatment was the dietary. For four days the patient was given only ice, and subsequently the diet was limited to Valentine's meat-juice, in small quantities, until the twelfth day. On the twenty-third day he had the first movement on the bowels, after an enema. Six weeks after the operation, he was taking ordinary light diet, and could move about easily without inconvenience. Seventeen months later, when last seen, he was perfectly well, and apparently no stricture had been produced. Mr. Banks then passed on to discuss the general question of the treatment of gangrenous intestine. He referred to the statistics published by Mr. Makins, who collected fifty-five cases of resection of intestine; the percentage of deaths was fifty-two; the cause of death, in the majority of cases, was septic peritonitis. The operation was first performed in 1727, but not systematically until recent years. According to Mr. Makin's further table of forty cases of resection of intestine for artificial anus, the percentage of deaths was only thirty-eight. This seemed to point to the secondary resection as the best line of treatment in the great majority of cases. If, then, it were decided to leave the gut *in situ*, he thought it best simply to lay the gut open, and not to touch the stricture. In six cases of gangrenous intestine under his care, three recovered well under this method; two were moribund when operated on; but in the sixth case, on the sixth day, when the patient was in a fair way to recover, perforation of the intestine occurred just inside the internal stricture. The really important question was, whether the stricture should be divided or not. He held that it should not. Death in strangulated hernia was brought about, not by peritonitis, but by absorption of septic material effused into the peritoneal cavity. The plan advocated by Spence, of pulling down a sound piece of gut, was doubtless good, but he questioned whether it was necessary to divide the stricture to do this. The cases appropriate for resection were very few; the patient ought to be strong and in good condition, and skilled assistance must be at hand.

Mr. Trevis was in favor of excision of the gangrenous portion of the gut, which was a well-defined area; an artificial anus was then formed. He referred to the danger in resection of not getting beyond the area of gut when gangrene was incipient; many cases had failed from gangrene in the line of the stitches. The excision of a wedge-shape piece of intestine was liable, as he had found by experiments on dogs, to lead to disturbance of the nutrition of the part. If resection were performed, he thought discontinuous sutures very preferable to the continuous suture, and Chinese twist to gut In Littre's hernia, at least, the stricture should under no circumstances be divided.

Sir William MacCormac thought any practical surgeon would agree with Mr. Banks—that the operation of resection must be limited to a few cases; he was also disposed to agree with Mr. Banks, that the strictured part of the gut ought to be left alone, and that, therefore, the stricture should not be incised.

Mr. Morrant Baker also agreed with Mr. Banks that, to the majority of cases, the operation of resection was inapplicable, as the patients are generally in too feeble a state to withstand so severe and prolonged a process. As a rule, he had followed the practice common at St. Bartholomew's Hospital, and had divided the stricture; but the success of the method was not great, and he was inclined to reconsider the question; he very much doubted the wisdom of pulling down the intestine, for, by so doing, adhesions, upon which the safety of the patient depended, might be broken down.

Mr. John Morgan doubted whether the operation of resection could replace the ordinary practice of leaving the gut *in situ*. The artificial anus might subsequently be dealt with. The length and difficulty of the operation, and the large mortality after resection, were strong arguments against its general adoption.

Mr. Makins thought that secondary resection was a very much better procedure, not only because, in primary resection, the general and local conditions were unfavorable, but because it would be quite impossible to render the gut aseptic. He still thought a mechanical contrivance an advantage, as, in so prolonged an operation, an assistant could not keep up even and uniform pressure, and the manipulation to which the gut was subjected was necessarily increased.

Mr. A. P. Gould thought that, if the practice of pulling more intestine down were followed, gangrene of that portion would probably occur, as a still further quantity of mesentery would be also pulled down, the pressure on the strangled gut increased, and the part of the intestine newly pulled down would become strangulated, and very quickly gangrenous.

Mr. Bernard Pitts considered that the duration of strangulation was an important element in coming to a decision; where strangulation was of long standing, immediate resection would be performed under very unfavorable local as well as general conditions.

Mr. Walter Pye suggested that the greater amount of strain on the mesentery, produced by pulling down the gut, might lead to eventual destruction of the adhesions.

Mr. Mitchell Banks was glad to find that all the speakers agreed with him, in looking upon the operation of primary resection as one that could be but rarely performed. Whether the piece of gangrenous bowel were slit up, or removed, or left alone, was a matter almost of indifference. Mr. Treves apparently held the same view as to treatment as Mr. Spence. The portion of gut removed measured between thirteen and fourteen inches.—*British Medical Journal.*

The Best Operation for Fistula in Ano.

[A Report to the Louisville Medical College by Prof. J. M. Mathews, M. D.]

I MAY not be conforming to the custom of the Society in making a verbal report, but my excuse is the want of time in which to prepare a written one. It has so often been asked me by my medical friends, "Which do you regard the best operation for fistula in ano?" that with your permission I will make that my subject to-night.

No definite answer could be given to this question for the reason that every case is within itself an individual one, presenting so varied a condition that the surgeon must of necessity consider all the bearings before determining on the method of operating. To better illustrate this, you will permit me to detail several cases that I have lately treated.

CASE I.—Henry M., aged fifty-two, a robust, healthy man. As an occupation, was employed by one of the large breweries to collect bills and "treat customers and friends." He had a large fistulous track running from the lower edge of the scrotum through the perineum into the rectum. The internal opening could be felt about three inches up the gut, into which the finger could be inserted. Branching from the main sinus, about its middle, was a smaller one, running toward the groin. The original abscess, which was the beginning of the trouble, occurred some twelve or fourteen months before I saw him. For seven months he has been under the treatment of an advertising physician in town. The plan of treatment pursued by him was injecting the sinus, and the *attempt* to ligature the same. The patient, growing impatient, discharged the physician, and came, according to the advice of his physician, to me. Upon an examination, I found the condition to be as already described. I suggested an operation, to which he agreed. He was put under the influence of chloroform, and an incision was made from the external opening in the perineum to the gut, laying open at one stroke the whole of the main sinus. A wound was made six inches long and three inches deep. (The patient was a portly man, weighing 210 pounds.) The knife was then run through the other sinus, encountering a sac midway whose lining membrane was as callous as the main sinus. The knife was now freely drawn *through* the *bottom* of each sinus, including that of the sac. At the end of six weeks the patient was discharged cured.

I desire to say, in reference to this patient, that his habit had been to drink on an average fifty or more glasses of beer a day. During his illness, I did not deem it expedient to withdraw stimulation; hence he took it very freely and without injury.

Case II.—A gentleman came a long distance to be treated for rectal disease. He imagined his trouble to be serious. Upon examination, all that could be detected was a recent and slight sinus running just beneath the skin, and ending at the juncture of the mucous membrane and the true skin of the anus. To make a *speedy* cure, I ran the knife along under the skin, dividing it. He returned home in a few days.

These two cases are cited to illustrate the very great difference in the disease, fistula in ano, and therefore to suggest that the treatment that would or might prove effective in one could not possibly be of advantage to the other.

One being but a simple sinus, and that, too, not penetrating the bowel, could easily be cured by any of the different operations suggested by the authors. Either the injection of the sinus with such things as nit. silver, sulp. copper, carbolic acid, etc., or the insertion of a ligature—either elastic or non-elastic—would have cured the patient. The knife was used in the case simply because it was more speedy, and the patient did not object.

The other case fully illustrates that no other method save the knife would have been successful, for the following reasons:

1. The disease had existed a sufficient length of time for the whole route of the sinus to become callous.

2. There existed an additional sinus, including a sac, the edges and bottom of which were in the same condition.

Therefore, the injection plan would not have sufficed, for the reason that it could not effect a callous condition. The ligature would not have availed, because an additional sinus existed, and there was no possible way of knowing that it and others were present, and if one track was cut through without the division of the others, the operation would have been a failure; hence the conclusion that each case of fistula in ano is an individual one, and that no special line of treatment can apply to all. There are exceptional cases where the simple injection will cure.

There may be many that the ligature would meet all indications, but there are others that would not yield to any treatment but the knife, and Case I. was one of that kind. Were I forced to accept one method in lieu of all others, I certainly would take the knife. It has all of the advantages, and, in a majority of cases, none of the disadvantages of the others. It is the surgeon's weapon to combat surgical afflictions.—*Medical Herald.*

False Doctrines in the Treatment of Fractures.

A PAPER on this subject was read by Dr. John B. Roberts, in the course of which he said: The great point in the treatment of fractures is, not the kind of dressing that is used, but simply the keeping of the parts at rest. Very little ensheathing callus is formed if the parts are held in coaptation. This is proved by post-mortem examinations. Where the fracture involves the joint, it is important that careful passive motion be commenced at as early a period as possible. Where the joint is not involved, there is no need of passive motion, and hence should not be commenced sooner than the fifth week. Passive motion should never be made while acute arthritis is in progress. Again, splints are frequently worn too long. In simple fractures of the fibula, one week of confinement is all that is necessary In compound or otherwise serious fractures, a much longer period is required. Another erroneous view is that which opposes the conversion of simple fractures of the cranium into compound, where the case is obscure and an accurate examination can not otherwise be made. The danger of the wound is rendered little, if at all, more serious, and a definite diagnosis can be made. Another error is in the treatment of fractures of the nasal bones by the application of splints or adhesive strips. The proper method of holding the fragments in apposition is by transfixion with pins. Another error in this connection is the placing of canulæ in the nasal cavities to aid in holding the fragments in position.

The important factor in the treatment of fractures of the clavicle is to apply such a dressing to the sternal end of the bone as shall prevent it from sliding forward, as it would do from the weight of the upper extremity. This is to be accomplished by extending the angle of the scapula, and not by the wearing of an axillary pad, which can not succeed in holding the bone in position, unless the pad be so large as to render its use unadvisable. He also claimed that the use of the angular splint for fractures of the neck of the humerus is an error. In fractures about the middle of the forearm, interosseous pads are seldom required if the fragments are put into accurate apposition, and the arm carried in the prone position.

Another error is the use of the straight splint in fractures of the lower third of the radius. The straight splint will do very well for the external surface of the arm, but not for the internal. In most cases the fracture of metacarpal bones can best be overcome by placing adhesive strips over the part attached to the fingers, and to a splint placed under the hand, and, if desired, projecting a little beyond the ends of the fingers.

Finally, it is an error to rely upon measurements of the lower extremities for the estimate of the result obtained from our treatment of fractures. It is surprising that, although the fact that the extremities differ greatly in length has been repeatedly brought to the attention of the profession, it is an almost universal custom for surgeons to measure their broken limbs. Very often, too, where there is no natural difference, there is an apparent one from the position of the pelvis when the measurement is taken.

Dr. W. F. Peck, of Iowa, stated that, with reference to fractures of the condyles of the humerus, he had for fifteen years taught the importance of using no splints except for support.

Dr. Mudd, of St. Louis, remarked that the great point to be desired is the limitation of inflammatory action about the seat of fracture. Control that, and you control the amount of anchylosis of the joint. Put the fragments in good apposition, control the effusion into the joint, and prevent movement, and you get a good result. In fractures of the metacarpal bones, put the parts in position, put the pad near the joint, put on a splint, and bandage it firmly.

Dr. E. P. Cook, of Illinois, stated that in fractures of the lower end of the radius, the application of the posterior splint is all that is necessary. One case of this kind he had treated by applying a closely-fitting kid-glove to the hand, and a close bandage over the fracture, with direction to lay the arm on a pillow in any position that was most comfortable. The result was perfect.

Dr. Roberts stated that he had not attempted to bring out anything new, but merely to present some of the more common errors for discussion. He agreed with Dr. Peck, that many fractures would be better treated without any splints than the ordinary splints. In fractures of the upper end of the humerus, it was better, in most instances, to let the arm hang vertically. Sometimes, however, it is best to let the arm fall forward. In many cases we need no splints at all. If we reduce the fracture, the interlocking of the fragments will ordinarily keep the fracture in place. If the fracture is comminuted, however, it should be treated with splints.

The Cholera in 1849.

Samuel R. Percy, M. D., New York, writes: During the epidemic of cholera, in 1849, I was physician to the Seventh Ward, and I attended a large number of cases. As is usual in the early outbreak of nearly all epidemics, a great many of those attacked with the disease died, but, toward the latter part of the epidemic, when the disease was not so rapid in its progress, I saw the good effects of the remedies used.

With all persons over whom I had control, I compelled the use of water that had been boiled. I found I could do this better by extolling the virtues of black tea, so much so, that many of the drinking saloons kept hot tea, and I thus greatly reduced the use of spirits.

I prohibited the use of crude, uncooked foods, and enforced cleanliness.

As soon as I was called to a case of cholera, I administered five grains of tannin dissolved in a teaspoonful of sulphuric ether, and, if there was much nervous irritation or fatigue, this was accompanied with a dose of opium. I kept prepared the following mixture:

℞	Tannin	ʒj. ℈j.
	Sulphuric ether	f℥ij.
	Syrup simpl.	f℥ij.
M.		

This was shaken, and a dessertspoonful given at a dose, washed down with some sweet flax-seed tea.

I also kept prepared some very thick syrup of flax-seed; warm water added to some of this readily made flax-seed tea. This dose of tannin and ether was given every hour until the diarrhœa was controverted; occasionally it was necessary to give ten or twenty drops of laudanum, but opium alone was insufficient to check the diarrhœa. I have often seen a single dose of the tannin and ether check a profuse diarrhœa; then a full dose of laudanum in ether was given to keep the patient in the recumbent position for twelve hours or more. Often these doses of tannin and ether did not check the discharge; I then gave five grains of tannin and two drachms of ether in half a pint of warm milk as an injection, using a large catheter to throw it as far up the bowels as possible.

Tannin and ether afforded me better results than any other remedies; often I needed opium, but more as a sequence to keep the patient quiet after the effects of the tannin. Opium treatment alone gave me but little satisfaction.

During the month of August, 1849, I was conversing with Prof. Joseph M. Smith upon the use of tannin. He said he had tried it without any good results, but he acknowledged that he had used it only in one-fourth grain doses. He said he should be afraid to give it in five and ten-grain doses, as I had done, fearing it would be poisonous, but he afterward saw a patient with me, to whom we administered ten grains of tannin and two drachms of ether, within two hours, with most successful results.

In some cases it was difficult to get persons to swallow the ether, and then I mixed it with syrup, which made it less unpleasant, and a good large mouthful of flax-seed tea removed the disagreeable taste of the ether. If I needed opium, it was given in ether sweetened with syrup.

With drachm doses of ether mixed with syrup, given every half hour or hour, I treated many cases of diarrhœa—cases that seemed to me choleraic in their symptoms. By thus early treating them, I was enabled to prevent the disease from progressing to its usual fatal termination.—*N. Y. Medical Record*, April 11th.

Alcoholic Paralysis.

THE immediate and transient effects of an excessive quantity of alcohol upon the human nervous system, whether they are manifested in the form of drunkenness, or of delirium tremens, or of an acute attack of insanity, are well known. Scarcely less evident are the effects produced upon the nervous system by a less excessive, but a more prolonged abuse of alcoholic drinks. These effects may be manifested either in a general failure of physical and mental power, or in a form of disease closely resembling progressive paralytic dementia, or in various forms of chronic insanity, or in epilepsy, or in neuralgia, or in paralysis. In the acute form of alcoholic poisoning, no change in the structure of the nervous system has been found, except that the meninges in common with the internal organs and the mucous membranes are the seat of a very decided injection and of a slight exudation. In the chronic form of alcoholism, a number of pathological changes have been discovered in the nervous system, which, however, vary greatly in different cases.

Of late years the paralysis which results from the abuse of alcohol has been accurately described by numerous observers, and the attempt has been made to discover the lesion of the nervous system, which is associated with this form of paralysis. Two cases which are reported by Dr. Henry Hun, of Albany, in the *American Journal of the Medical Sciences* for April, 1885, are typical examples of this disease, and contribute to a better understanding of it.

Dr. Hun has collected the recorded cases of alcoholic paralysis, and from their study he holds that we are justified in regarding it as a special form of disease with the following symptoms: After a number of cerebral and gastric disturbances due to the alcoholic poisoning, the symptoms of the disease proper commence with neuralgic pains and paræsthesiæ in the legs, which gradually extend to the upper extremities, and which are accompanied at first by hyperæsthesia, later by anæsthesia, and in very severe cases by retardation of the conduction of pain. Along with these symptoms appears a muscular weakness which steadily increases to an extreme degree of paralysis, and is accompanied by rapid atrophy and by great sensitiveness of the muscles to pressure and passive motion. Both the sensory and the motor disturbances are symmetrically distributed and the paralysis attacks especially the extensor muscles. In addition to these motor and sensory symptoms there is also a decided degree of ataxia. The tendon reflexes are abolished, and vaso-motor symptoms such as œdema, congestion, etc., are usually present. Symptoms of mental disturbance are always present in the form of loss of memory, and in transient delirium.

The lesion is in all probability a degeneration of the peripheral nerve fibres and of the nerve cells in the cerebral cortex, together with a chronic congestion or inflammation of the pia mater. This lesion explains well the symptoms, although it is curious that alcohol should not attack the spinal cord, but only the highest and lowest part of the nervous system, if one may so call the cortex of the brain and the terminal branches of the peripheral nerves.

Microscopy.

DETECTION OF SPERMATOZOA IN RAPE.—Dr. Lionel S. Beale, in his work just published upon "Urinary Derangements," relates the following case: "A little girl was brought into King's College Hospital in July, 1857, upon whom it was said a rape had been committed about three hours before. Mr. C. Heath, who was House Surgeon, removed, with a pipette, a little of the mucus from the vagina at a point beyond the hymen, and after placing it upon a glass slide, sent it to me for examination. It was not examined until six hours afterward, and, being uncovered, it became quite dry. Nothing definite could be made out by submitting the dry mass to examination. It was, therefore, moistened with a drop of distilled water, covered with a piece of thin glass and examined with a quarter-inch object-glass. Numerous cells of vaginal epithelium were seen, and amongst them as many as six spermatozoa were discovered in various parts of the field. All these were well defined and free from the epithelium."

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MONSTROUS SPERMATOZOA.—*Gailard's Medical Journal* for May contains a short paper by Dr. Ephraim Cutter, of New York, on "Variations in the Form of Human Spermatozoa." He figures some examples of two-headed and three-headed spermatic filaments which were observed by Dr. G. H. Salisbury in 1861, and gives a second figure containing examples of these deformities observed by himself in human semen, as well as two-tailed and three-tailed spermatozoa. Dr. Salisbury's specimens were obtained from pure semen. Dr. Cutter obtained his from semen mixed in the urine. The latter writer suggests that certain congenital deformities may depend upon monstrosities of the sperm, and seems to hint that a double headed monster may be the offspring of a two-headed spermatozoa.

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A CHEAP MICROSCOPE.—The Messrs. Beck recently exhibited at the Royal Microscopical Society, in London, a new form of a microscope. "In the construction of this," says the *Journal of the Royal Microscopical Society*, "the Messrs. Beck appear to have reduced the cost of an efficient to its very lowest limits, 3*l.* 3*s.* only being charged for it, including a one-inch and one-fourth-inch objective, which, it is claimed, are accurately corrected, purely achromatic and thoroughly suited for scientific research. It is nickel-plated throughout, with the exception of the base, which is solid in design, and contrived so that the instrument is steady in every position. It is made in two forms, with a sliding or a rack-and-pinion adjustment.

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MICROSCOPES WITH BENT BODIES.—In the last number of the *Journal of the Royal Microscopical Society*, June, there is a cut representing a microscope with a bent tube—the curve being about midway between the objective and eyepiece. With this instrument, while the stage is horizontal as it stands upon the table, the person using it sits as he does when looking through an ordinarily-constructed microscope when it is inclined. The *Journal* thus speaks of it:

"It is generally admitted that a vertical position of the microscope is a very inconvenient one for the observer, and that an inclined position is in every way preferable. The late Mr. C. Stodder illustrated this by a drawing. [The drawing alluded to represents a person looking through a microscope, with a vertical body that could not be inclined, after the old style of constructing microscopes, with the head and shoulders bent forward—an evidently fatiguing position. Beside this figure was another of an individual using an instrument with body inclined, the head and shoulders erect, and consequently his position easy and comfortable.—ED. MED. NEWS.] On the other hand, there is no doubt that, in a large proportion of laboratory researches, the conditions of observation with objects in fluid necessitate the stage being maintained in a horizontal position. The two conditions, however, of an oblique body-tube with a horizontal stage can well be reconciled by the plan originally suggested by M. Nachet, of inserting a truncated equilateral prism in the body-tube. The upper part of the tube above the prism being inclined, the observer is relieved from the discomfort which long observation with the vertical tube entails upon the muscles of the neck. The prism, unless badly made, does not interfere with the definition of the objective, even when used upon *Amphipleuro Pellucida.* The same prisms were adopted by M. Nachet in his double-bodied microscope for two observers."

Gleanings.

MALTINE.—Referring to *Maltine*, and his treatment for indigestion, Dr. J. Milner Fothergill, Senior Assistant Physician to the Victoria Park Chest Hospital, London, England, says:

"Then, again, in order to aid the defective action upon starch, by the natural diastase being deficient in quantity or impaired in power, we add the artificial diastase, Maltine. But, as Dr. Roberts points out, in order to make this ferment operative, it must not be taken after a meal is over. Rather it should be added to the various forms of milk porridge or puddings before they are taken into the mouth.

About this there exists no difficulty. Maltine is a molasses-like matter and mixes readily with the milk, gruel, etc., without interfering either with its attractiveness in appearance or its toothsomeness; indeed, its sweet taste renders the gruel, etc., more palatable. A minute or two before the milky mess is placed before the child or invalid, the Maltine should be added. If a certain portion of baked flour, no matter in what concrete form, were added to plain milk, and some Maltine mixed with it, before it is placed on the nursery table, we should hear much less of infantile indigestion and mal-nutrition."

Again, the same eminent authority, in Fothergill & Wood's "Food for the Invalid," says: "The action of the saliva upon the starch is to quickly convert it into sugar. Consequently, as sugar is soluble, this leaves the nitrogenized portion of the flower to be readily acted upon in the stomach. When the saliva is defective in an infant, or at least, insufficient to produce the conversion of starch into sugar, it is now customary to give the infant Maltine. Maltine is a sweet, molasses sort of thing, which can be added to the baby's food a brief period before it has to be taken, for the conversion is quick. The starch being thus largely converted into sugar, the digestive act in the stomach goes on without painful efforts. The treatment of dyspepsia in adults is carried out on precisely the same principles, and baby's food and Maltine are equally good for them."

A New Treatment for Vesico-Vaginal Fistula.—Dr. B. Ruppe, of New York, recently read a paper before the Medico-Chirurgical Society of German Physicians, in which he described the circumstances which led him to the discovery of a novel method of treatment of this condition. He had been hastily summoned to attend a primipara, thirty-four years of age, who was in labor. She had had a severe chill and high fever the night before, and labor had commenced and the bag of waters had ruptured previous to his arrival. The pains were sluggish, and the presenting part could be felt only with the greatest difficulty. It was not until the following day that the pains returned with sufficient force to bring the head within reach, when the forceps were applied and the woman was delivered of a dead child. More notice was then taken of the other symptoms, and it was found that the woman was suffering from typhoid fever; and three days later it was discovered that she also had a vesico-vaginal fistula of sufficient size to permit of the introduction of the index-finger into the bladder. Dr. Loewe saw the case at this time, and it was determined to operate by Marion Sims' method after the patient had recovered from the typhoid fever. The patient being wretchedly poor and unable to provide the linen necessary for cleanliness, it became a problem how to obviate the irritation and other evil consequences following the constant dribbling of urine. Finally a large washtub was procured and provided with three pillows—one for the back, one for the knee-bend, and the third to sit upon.

The patient was placed in the tub, which was then filled with lukewarm water. The walls of the vagina were kept apart by means of a wire speculum. By means of this arrangement all the indications were fulfilled—the urine was prevented from irritating the parts, and the general temperature was brought under control by the bath. To the water, which was frequently renewed, was added at first an infusion of chamomile, but subsequently an oak-bark infusion was employed. The patient remained in the bath twenty-one days. During the third week, the patient frequently said that she had an inclination to urinate, and an examination the day after her removal from the tub revealed the fact that no fistula was present. Dr. Loewe appeared at the appointed time to assist at the operation, but was astonished to find nothing to operate upon.

"In the majority of cases," Dr. Ruppe says, "it would not be necessary to keep the patient in the bath longer than a week."

The method is especially applicable in cases in which an operation is contra-indicated, or in which it has been performed without success, or it might be employed in conjunction with the silver-suture method.

RHINOLITHS.—Dr. R. E. Beach, of Vandalia, Ill., writes that his attention was called recently to an article on this subject, by Dr. J. S. Bettman, in the *Journal of the American Medical Association*, and he was led thereby to send a report of two cases occurring in his own practice. Some twelve years ago, a child was brought to him for advice concerning a catarrhal affection of the nose, which had existed for eight months. The Doctor's suspicion having been aroused by the fact that the right side only was affected, he made a careful examination, and discovered a foreign body resting upon the middle turbinated bone. It was dislodged by slight traction with the forceps, and was found to be a rhinolith having a small seed for a nucleus. The second case was that of a little girl, four years of age, who had been suffering from a nasal catarrh for about eighteen months. The father asserted positively that the child had never introduced anything into the nose. Inspection showed an object lying on the floor of the right nasal fossa, near the posterior termination of the inferior turbinated bone. The mucous membrane was much swollen, and covered completely the upper portion of the foreign body. The latter was slightly movable, and was supposed to be a detached sequestrum. Its removal being determined upon, the child was placed under chloroform, and the object was withdrawn by a hawk-bill forceps. It was found to be a calcareous body of oblong shape, three-fourths of an inch in its longest and one-half inch in its shortest diameter, and containing a cherry-pit as a nucleus. Dr. Beach says that he can recall numerous instances of the introduction of foreign bodies into the nostrils, and he insists upon the necessity of a careful and thorough examination of the nasal cavities in every case of catarrhal affection, especially when occurring in children.

A NEW METHOD OF TREATING ACUTE INTESTINAL OBSTRUCTION.—There has recently been advocated and successfully practiced a method of affording relief in cases of intestinal obstruction, which may become widely applied. Dr. Kussmaul was the first to advance the view that free washing out of the stomach might prove efficacious, and already cases of marked success following this measure have been published. In one case, after eight days complete obstruction, and, in the other, after nine days, the symptoms of fecal vomiting being present in each, the washing out of the stomach, and consequent evacuation of large quantities of fluid fecal matter from the upper part of the small intestine, resulted in complete relief from symptoms. The measure is compared by Cahn to the effect produced by laparotomy above the site of an obstruction; and the good result is explained on the ground that the evacuation of the distended bowel affords an opportunity for a spontaneous reduction of a herniated or twisted loop. The relief from the inordinate abdominal distension is very great, and, moreover, the disappearance of this distension favors palpation for the purpose of diagnosis. The digestive tract, being relieved from distension in its upper part, can more easily overcome the pressure and displacement at the seat of invagination. The exaggerated peristaltic action is reduced to the normal, and an increase of the evil thereby avoided. If morphia have not already been administered, it is well to preface the operation with a subcutaneous injection; but it is found that the passage of the soft tube, which ought to be employed, causes less distress than the vomiting and straining induced by the lesion. Obviously, not every case of acute intestinal obstruction could possibly be relieved by this method, but the simplicity of the practice, the certainty of affording temporary relief, and the possibility of a cure, are reasons for its sedulous adoption prior to proceeding to more serious measures.

An Improved Fracture-Box.—Dr. S. Bradbury, of Oldtown, Me., sends us a photograph representing the "box and railway" devised by himself for the treatment of compound fracture of the leg. The box is the ordinary fracture-box of every-day use, but the improvement consists in mounting it upon four grooved wheels riding upon two rails. He writes: "I have just removed the apparatus from a patient who had a compound comminuted fracture of the middle and lower third of the left leg, and I believe it the best apparatus for this kind of injury which we possess. The railway is screwed to the cross-bar at the foot of the bed, and rests upon a good hair-mattress. The leg is placed in the box, and imbedded in bran, which is retained in its place by a piece of sheeting laid in the box. The great advantage of the railway is that it prevents the ends of the upper and lower fragments from being crowded together by any movement of the patient during sleep. If the patient moves up or down, the box slides with the leg, and no harm is done. The attendants of the patient above referred to, told me that this would often happen while he was asleep, the trucks riding to and fro over the rails without the least disturbance to the position of the leg in the fracture-box."

Laryngeal Hemorrhage.—The name laryngeal hemorrhage is used for a variety of affections which differ widely in regard to cause, nature of the disease, and severity of the symptoms, and have in common only the effusion of blood into some part of the larynx.

Dr. J. W. Gleitsmann, of New York, in a paper in *The American Journal of the Medical Sciences* for April, proposes to designate by the name laryngitis hæmorrhagica, such effusions of blood on the free surface, or under the epithelium of the mucous membrane, which are of a so-called idiopathic character, and not due to any constitutional disease or traumatic origin. He records a case of this character, and analyzes those that have been heretofore recorded. He finds that in exceptional cases only is hemorrhage from the larynx a precursor of phthisis.

ON THE PATHOLOGY OF PAGET'S DISEASE OF THE NIPPLE.—Drs. LOUIS A. DUHRING and HENRY WILE of the University of Pennsylvania, give in the July number of the *American Journal of the Medical Sciences* an instructive study of the pathology of Paget's disease, which has already evoked some discussion. The importance of the subject is apparent, and it ultimately resolves itself into the question of distinguishing between ordinary eczema of the nipple and another similar cutaneous pathological process which on good grounds is believed to lead to the formation of malignant disease of the mammary gland.

The affection is regarded by Drs. Duhring and Wile as an abnormal proliferation and degeneration of the rete, with secondary destruction of the papillæ of the corium and subsequent development of scirrhus cancer of the atrophying variety. The cancerous change originates in the epithelium of the smaller ducts, and advances from below upward and outward as far as the skin is concerned; later it attacks the gland structure; and the retraction of the nipple is an early sign of carcinomatous change.

THE COMBINED ADMINISTRATION OF BELLADONNA AND IODIDE OF POTASSIUM.—Aubert ("Lyon méd.") affirms that the headache and coryza experienced after taking large doses of iodide of potassium may be entirely prevented by the judicious use of belladonna. In the case reported, eighty grains of the iodide were given daily, one grain of the extract of belladonna being administered in the evening. After a few days, the writer states, it is possible to suspend the use of the latter drug without any danger of a recurrence of the iodism.—*N. Y. Medical Journal.*

CHLOROFORM EXTERNALLY IN LABOR.—Rigidity of the os may be relieved in from five to twenty minutes by flannel saturated with chloroform and olive oil (1 to 1 or 2 to 1), and applied to the hypogastrium.—*Dr. A. Svanberg, Medical Record.*

Book Notices

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D., F. R. C. P., Physician-Accoucheur to H. I. and R. H., the Duchess of Edinburgh; Professor of Obstetric Medicine in King's College; Physician for Diseases of Women and Children in King's College Hospital, etc. Fourth American from the Fifth English Edition. With Notes and Additions. By Robert P. Harris, M.D. With Three Plates and Two Hundred and One Illustrations. 8vo. Pp. 663. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $5.00 in sheep.

In the short time that this excellent and highly esteemed work has been before the profession, it has reached a fourth edition in this country and a fifth one in England. This fact alone speaks in high praise of it, and, it seems to us, that scarcely more need be said of it in the way of endorsement of its value.

The author has carefully revised this edition, and presented the subject in its latest aspect from a British standpoint. But as American opinions and practice differ somewhat from those of Great Britain, and require that certain teachings should be remodeled in accordance with our usages and experience, Dr. P. Robert Harris, of this country, has assumed the editing of it, so as to adapt it to American practice. We differ on this side of the Atlantic, from the practice of British physicians as regards the manner of decubitus for the application of the forceps; in the models of instruments in use; in the amount of fear of the Cesarean operation when based upon our more favorable results; and it is thought by some, on the question of the use of stimulants for wet-nurses and convalescent parturient women, etc. As regards the latter, the author, on page 562, in speaking of wet-nurses, says: "For a nursing woman in good health, two good meals a day, with two glasses of beer or porter, and as much milk and bread and butter as she likes to take in the intervals, should be amply sufficient." We Americans, however, consider that wet-nurses are better without malt drinks; that they will nurse well on a diet that is largely farinaceous—that there is nothing equal to drinking milk in furnishing a lacteal supply.

In preparing this edition, the whole work has been carefully revised. The chapter on "Conception and Generation" has been in great part rewritten, so as to incorporate the most recent advances in Embryology. The American editor has added the new forms of Cesarean operation devised in Germany; the experiences in Berlin with Hick's method of treating placenta previa; the latest American statistics in the Cesarean section and laparo-elytrotomy; the latest Porro statistics of the world.

As a text-book for students, and for the uses of the general practitioner, there is no work upon obstetrics superior to the work of Dr. Playfair. Its teachings are practical, written in plain language, and afford a correct understanding of the art of midwifery. No one can be disappointed in it.

URINARY AND RENAL DERANGEMENTS AND CALCULOUS DISORDERS. Hints on Diagnosis and Treatment. By Lionel S. Beale, M.D., F. R. S., F. R. C. P., Professor of the Principles and Practice of Medicine in King's College; Examiner of Medicine of the Examining Board, in England, Appointed by the Royal College of Physicians and Surgeons, etc. 12mo. Pp. 356. Philadelphia: P. Blackiston, Son & Co.; Cincinnati: R. Clarke & Co. Price, $1.75.

This work differs from that of Dr. Roberts in that the latter is more especially devoted to the pathology, treatment, etc., of the organic diseases of the kidneys, while Dr. Beale's work mostly treats of urinary derangements as they are brought about by pathological conditions of other organs besides the kidneys.

Dr. Lionel S. Beale is one of the most distinguished microscopists of the world. He is the author of "How to Work the Microscope," and "The Microscope in Practical Medicine," each making a large octavo volume. His eminence as a microscopist is an assurance of his qualifications to treat of the subjects treated in this work. But so distinguished a scientist needs no guarantee of his ability.

This work is the most thorough recent work, giving instructions for the examination of the urine, and urinary deposits, with which we are acquainted since the work of Dr. Golding Bird has gone out of print. Dr. Bird's work upon urinary analysis was conceded to be the best and most complete up to the time of its appearance. Even now, although much behind the times, it can be consulted in regard to many points with considerable satisfaction. But as Dr.

Beale is a scientist of much more extensive and varied learning than Dr. Bird, his work would be regarded as much superior, even though the other was abreast of the time in its facts.

Every physician who desires to be acquainted with urinary derangements, as indicating the progress of disease of whatever type, should have a copy of this work. It will be found of great value to a medical man, even though he be without a microscope, but we would consider one with a microscope as deficient in microscopic literature unless he has it.

So varied and extensive are the subjects treated, that we have not the space to enumerate them. We can only advise every physician to procure a copy and study it. It is a work of too great value not to be in the library of every practitioner.

HAY FEVER, AND ITS SUCCESSFUL TREATMENT BY SUPERFICIAL ORGANIC ALTERATION OF THE NASAL MUCOUS MEMBRANE. An Essay read before the Philadelphia Laryngological Society. By Charles E. Sajous, M.D., Instructor of Rhinology and Laryngology in the Post-Graduate and Spring Courses, Jefferson Medical College; President of the Laryngological Society, Honorary Member of Medical Society of Warsaw (Russia), and other Medical Societies, etc. Illustrated by 13 Wood Engravings. 12mo. Pp. 103. Philadelphia: F. A. Davis, 1217 Filbert Street.

The author of this little work has had a very large experience in the treatment of "hay fever," which has enabled him to note the value of certain practical points. In this belief, he has written the volume before us, in order to communicate to his professional brethren, for their use, whatever knowledge he has upon the subject with which they may be able to benefit their patients.

The author defines hay fever to be "an affection characterized by periodical attacks of acute rhinitis, complicated sometimes with asthma, occurring as a result of a special susceptibility on the part of certain individuals to become influenced by certain substances, owing to a deranged state of the nerve-centers. It manifests itself only, provided the mucous membrane, primarily affected in the course of an attack, is in a state of hyperesthesia, and when the irritating substances are present in the atmosphere."

Hay Fever is an affection to which not a few persons are subjected, and it oftentimes produces in them immense discomfort. Although it is not prevalent to the extent of many other diseases, yet enough cases are met with by physicians to make a knowledge of its successful treatment desirable with every one.

The reader, although the work is small, will find the etiology, pathology, treatment, etc., of Hay Fever very thoroughly treated. The author has given the affection very close study; and having treated numerous cases, he has collected much valuable information. With the knowledge at hand in this book, the general practitioner will be able to conduct the treatment of a case like one having had an extensive experience.

We notice that, in cases admitting of it, the author advises, as a means of treatment, cauterization of the nasal mucous membrane by glacial acetic acid, applied by a caustic carrier especially devised for it.

A PRACTICAL TREATISE ON URINARY AND RENAL DISEASES, INCLUDING URINARY DEPOSITS. Illustrated by Numerous Cases and Engravings. By William Roberts, M.D., F. R. S., F. R. C. P. (Lond.), Professor of Medicine at the Victoria University, etc., assisted by Robert Maquire, M.D., Lond., F. R. C. P., etc. Fourth Edition. 8vo. Pp. 628. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $3.50.

This work of Dr. Roberts has now reached a fourth edition, showing high appreciation of it on the part of physicians. Small works, in great numbers, upon pathological conditions of the kidneys have been published, some of them of no little merit, but the practitioner, if he can afford but a single work upon the subject, wishes one that occupies sufficient space to very thoroughly treat of all the departments. The various phenomena presented by the urine in nearly all diseases, are now made ues of by intelligent scientific physicians to mark the progress made and to indicate the course of treatment. Urinary pathology, consequently, has assumed an importance which it was far from possessing only a few years ago.

The work is divided into three parts. The first part, which may be regarded as introductory to the other two, is devoted to the physical and chemical properties of the urine, and to the various alterations which it undergoes under different circumstances of health and disease, in so far, and only in so far, as they seem to have a practical bearing. In this part will be found quite full directions for examining the urine microscopically and chemically. Naked-eye and microscopical appearances of urinary deposits are described and figured, together with those of such foreign materials which are apt to accidentally find their way into the urine. The illustrations are so accurate that there will be found no difficulty, after their study, in recognizing the character of the different deposits, as revealed by the microscope, in examinations when clinical investigations are made. Still, for the thorough study of urinary analysis it is best to have, in addition, some one of such works as Neubauer and Beale and Dr. Parks; for urinary analysis for tracing the progress of pathological conditions in diseases generally, and for aiding in diagnosis and furnishing indications of treatment, is a complex and difficult study. The present work, however, probably affords as much information upon the subject as the general practitioner can give attention to.

The second part treats of a group of affections which may be designated briefly as "urinary diseases," viz.: diabetes insipidus, diabetes mellitus, gravel, and calculous and chylous urine. In these diseases, the author has furnished all recent accepted facts, as well as stating the results of his own extensive experience.

The organic diseases of the kidneys form the subject of the third and largest part of the work—and, we might add, the most valuable part. The most important organic affection, Bright's Disease, and its allies, are treated with a fullness commensurate with their gravity and frequency, and mainly from a clinical point of view.

The work is quite practical in its character, and is regarded as an authority in the diseases of which it treats. It seems, from our observation, that affections of the kidneys are greatly upon the increase, and that more than ever there is need for physicians to extend their knowledge of them. There is certainly no work that more fully sets forth the progress that has been made in the study of the diseases of the kidney, than this one of Dr. Roberts, and that more fully meets the wants of the physician in explaining the best methods of managing them in the treatment of them. We have no hesitation in recommending it to our subscribers.

A Treatise on Asiatic Cholera. Edited and Prepared by Edmund Charles Wendt, M. D., Curator and Pathologist of the St. Francis Hospital; Curator and Pathologist of the New York Infant Asylum, etc. In Association with Drs. John C. Peter, of New York; Ely McClellan, U. S. A.; John B. Hamilton, Surgeon-General U. S. Marine Hospital Service; and Geo. M. Sternberg, U. S. A. Illustrated with Maps and Engravings. 8vo. Pp. 403. New York: William Wood & Co. Cincinnati: P. W. Garfield.

With cholera threatening us for two summers in succession, and with almost a certainty of its appearing among us at no distant day, though we may escape the present season, it is natural to suppose that every one would be alive to everything pertaining to it, and would have a strong desire to gain the fullest information in regard to it. It is to be expected, too, that physicians should wish to learn all about its etiology, pathology, treatment, how it is propagated, how it can be evaded, if that be possible, etc. There is no disease, just at this time, the consideration of which is so important. Koch, last summer, visited a number of the cities in the southern part of France to study it, and was sent to India by the German Government for the same purpose.

The object of this work upon cholera is to furnish the physician with a faithful account of the actual state of our knowledge regarding the disease. While the experience acquired in past epidemics has been utilized to its fullest extent, the contributors to this volume have not ignored the new light shed on the disease by the most recent researches.

Dr. Ely McClellan, U. S. A., contributes a history of the epidemic as it has affected the U. S. Army, which constitutes an authentic record of a highly instructive subject. The pages containing it afford convincing proof of the agency of human intercourse in the dissemination of cholera.

We have not the space to enter into a detailed description of the work; but we will mention that Part II., upon the Etiology of Cholera, by the editor, Dr. Edmund C. Wendt, can not but be regarded as highly interesting at this time to every intelligent physician. There is contained in it an epitome of all the leading theories in regard to the causes of cholera, and a full account of the cholera-bacillus controversy, with a description of Koch's discovery. There are also cuts showing the test-tube cultures, hot-box for sterilizing, steaming apparatus for sterilizing potatoes, Koch's apparatus for the sterilization of blood-serum, and numerous other figures. There are minute descriptions of the processes for preparing slides to exhibit the various bacilli by the microscope.

Very valuable features of the work are articles prepared by Dr. J. B. Hamilton, Surgeon-General of the Marine Hospital Service, and by Dr. G. M. Sternberg, the first on the prevention of cholera, and the second on the destruction of cholera-germs.

In regard to Klein and other bacillus-eaters, Dr. Wendt says that in their zeal to disprove Koch's assertions, they have overlooked an essential part of his doctrine, which assumes that individual predisposition to cholera must exist before the microbes shall become potent for mischief, quite apart from that other circumstance of the destructive action of normal gastric juice upon the vitality of commas.

Clinical Studies on Diseases of the Eye, Including those of the Conjunctiva, Cornea, Sclerotic, Iris, and Ciliary Body. By Ferdinand Ritter Von Arlt, Professor of Ophthalmology in Vienna. Translated by Lyman Ware, M. D., Surgeon to the Illinois Charitable Eye and Ear Infirmary, etc. 8vo. Pp. 325. Philadelphia: P. Blakiston, Son & Co. Price, $2.50.

The translator, in his preface, says that, although within the past few years an unusual number of ophthalmological text-books have been published in the English language, he thinks no apology necessary for presenting to the American profession an English version of Prof. Arlt's latest work. It embodies the very essence of the author's mature experience, which reaches over almost half a century of ophthalmic practice.

If the Germans are not very practical, they are assuredly logical, basing their deductions upon correct principles, which they have evolved after close study. While the English excel them as empiricists, discovering remedies which relieve or cure, without knowing anything about the *modus operandi* of their action, the Germans are far in advance in reducing to a science all processes that are related one to the other. They first investigate the pathology of a subject with all the assistance they can bring to bear, and then deduce the treatment. The English, on the contrary, experiment with remedies, and if they happen upon a cure, they are satisfied with the result, and care but little how it has been brought about—are but little concerned about the relationship between the medicine and the disease.

The work of Prof. Arlt is a truly scientific one, being more suited to the wants of the physician than to the needs of the student of medicine. It explains not only the morbid processes, but elucidates their exciting causes. For this etiological relation for each individual case is no less important (on account of prognosis and therapy, and often, too, with reference to questions of sanitary science and forensic medicine,) than to find out in which part of the organ the disease is located, what anatomical changes have taken place, and what changes are still likely to occur, according to general principles and experience.

The work is divided into four parts, in which are treated Diseases of the Conjunctiva; Diseases of the Cornea; Diseases of the Sclerotic; and Diseases of the Iris and Ciliary Body. In adding this one to the number of their works, ophthalmologists will make a most valuable addition to their library; a volume which they will have frequent occasion to consult, and which will possess an authority, in consequence of the acknowledged learning and experience of the author, which but few works have.

MEDICAL THOUGHTS OF SHAKESPEARE. By B. Rush Field, M.D., Member of the Shakespeare Society of New York. 8vo. Pp. 86. Easton, Pa.: Andrews & Clifton. Price, in paper, 75 cents.

A few months ago we noticed the work of J. Portman Chesney, M.D., of St. Louis, entitled "Shakespeare as a Physician," and made numerous quotations from it. As Dr. Chesney makes quite extended remarks upon his quotations from Shakespeare, his work is considerably larger than the volume of Dr. Field; besides it has numerous illustrations.

Dr. Field's work has now reached a second edition. It must have met with an active demand, as it is only a year since the first edition was published. In preparing a second edition, the work has been revised and much enlarged. Chapters on the physician, surgery, physiology, anatomy and pharmacy have been added, together with over 300 quotations. The more interesting medical thoughts have received careful attention. Numerous quotations in regard to medicine and its departments have been gleaned from Ben.

Jonson, Pope, Spenser, Young, Swift, Moore, Byron, etc. Those from Byron are chiefly from his "Don Juan."

While the author claims to have reproduced from the Bard of Bards, with references and proper comments, all the medical allusions contained in his works; yet, under the head of Obstetrics, there is omitted the expressions of dissatisfaction on the part of the old midwife, as regards her fee, who delivered the Queen, in "Henry VIII." As the fee is an important matter in Obstetrics, we think this complaint of the old female accoucheur should have been referred to. We quote from Act V., Scene I.:

King Henry: "Give her a hundred marks. I'll to the queen."

Midwife: "A hundred marks! By this light, I'll have more.

> "An ordinary groom is for such payment,
> I will have more or scold it out of him.
> Said I for this, the girl is like to him?
> I will have more, or else unsay'st it; and now
> While it is hot, I'll put it to the issue."

Under Action of Medicines, the allusion to the "cursed hebenon," in "Hamlet," is held to be an example of Shakespeare's medical knowledge instead of his ignorance. Dr. Field's book will be quite highly appreciated by all his professional brethren who delight in Shakespeare.

MANIPULATION OF THE MICROSCOPE. By Edward Bausch. 16mo. Pp. 96. Rochester, N. Y.: Bausch & Lamb.

This will be found a very convenient little book for those beginning the study of microscopy. The author is a maker of fine lenses for the microscope; and, of course, knows all about their manipulation.

The work is very compact, but the descriptions are sufficiently full, nevertheless, to impart a thorough understanding of all parts of the microscope. The author, after describing the various kinds of microscopes, then proceeds to describe the compound microscope. Beginning with the base or foot, he describes the pillar, arm, body, nose-piece, screw, eye-piece or ocular, drawtube, stage, clips, mirror, optical axis, etc. Then he proceeds to treat of object-glasses, angle of aperture, magnifying power, etc. In brief, every essential point pertaining to the microscope is fairly discussed and the method of manipulation described. The inquiry is often made of us, What elementary work should a beginner of the study of microscopy procure? We know of none better than this little one.

We do not know the price, but we suppose about 75 cents.

On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D., Lond. Fourth Edition. 8vo. Pp. 278. New York: William Wood & Co.; Cincinnati: Garfield.

This volume is the April number, 1885, of "Wood's Library of Standard Medical Authors."

No medical writer has written so well upon the wasting diseases of children as Dr. Eustace Smith. These affections are exceedingly common, and often baffle the best efforts of the physician. After days and nights of incessant watching on the part of parents, they finally have to give up a favorite child, which they have seen gradually wasting away without being able to afford relief.

In preparing a fourth edition of this work for the press, the text has been revised, and many alterations and additions have been introduced. Every care, however, has been taken to maintain the practical character of the book, so that it may continue to be a safe guide to the management of some of the commonest but not the least fatal maladies of early life. Every physician should have a copy of the work in his library.

Editorial.

Delay.—We are very much behind in the issue of the Medical News this month from causes over which we have had no control. Our printer is to blame for the tardiness, not ourselves. We expect, however, in our next issue to be very nearly up to time.

While speaking of delay, we will mention that some of our subscribers are very much behind in their payments. We send out some bills in this number of the journal. Others will be sent in following numbers. We hope that a prompt response will be made to these bills. If those who have not yet received bills will remit without waiting for a bill, they will confer a favor upon us and save us considerable trouble.

Law and Medicine.—Medicine was instituted at a very early period. Physicians are mentioned in the Old Testament of the Bible; and at the beginning of the Christian Era it was considered as an important science. Virgil studied it, regarding a knowledge of it as a necessary part of learning. Celsus wrote a treatise upon it, which has come down to our day, and is found in the libraries of learned medical men. But men of learning, much older than Celsus, of the first century, wrote upon medicine, having made its study and practice the pursuit of their lives.

No arguments are necessary to prove that the profession of medicine has been attended with great benefit, diseases have been cured, sickness prevented, suffering relieved, and the average duration of life materially increased. Although, with the advance of civilization and enlightenment, the causes of disease have greatly multiplied, yet there is less sickness now, in proportion to the population, than ever before; and this in the face of the fact that people, more than ever, violate, by indulgence in vices, the plainest laws of health, and that it is the commonest occurrence for foods to be adulterated, and to contain, if not actual poison, unhealthy additions.

Though it is easy to establish the fact that the science and practice of medicine has been of great benefit to the world, and is necessary for the welfare of the race, can there as much be said for the *science and practice of law?* We mean by this designation the enactments of the statute books, and the dispensations of jurisprudence by the modern courts. We do not refer to natural law or common law that prevail everywhere, and belong to the race.

We call to mind that, two or three years ago, we listened with considerable interest to a couple of addresses made at the Commencement of a Law School—one of them delivered by an eminent ex-Judge of the Supreme Court of Ohio, and the other by the Dean of the School, an LL. D., and now President of a University. The burthen of both addresses was the great boon which had been conferred upon society by a *scientific jurisprudence.* They stated that the *science of law* was a progressive one—that new principles were being discovered, etc. Theoretically, the orators made out a very good case in the way of substantiating the wonderful benefits to society of learned lawyers and a cultivated jurisprudence; and if the subject had been committed to a jury on the spot, without any opposing argument from the other side, we have no doubt but that a verdict of everlasting laurels, as the great benefactors of mankind, would have been awarded to the profession of law, without the jury leaving their box.

We must confess that the eloquence of the learned legal orators had some effect upon us, and we began to consider whether we had not been mistaken in supposing that the medical profession was second to none other in its benefits to the race. We did not continue in doubt long, however; for when we revolved in our mind those of our friends who had *tried* the law in pursuit of their "rights," we found that they not only did not secure them, but had to be content in being exceedingly thankful that they had not altogether impoverished themselves.

But since our attendance upon the Law School Commencement, a mob burned the Court House of Hamilton County in consequence of the great indignation caused by the impossibility to have punished the perpetrators of the most flagrant crimes. When a murderer would be convicted, it would invariably happen that the Supreme Court would undo the verdict for the most absurd reasons. A certain murderer, at the time of the burning of the Court House, was in jail, who had been convicted three times of murder in the first degree—having murdered his wife in a most brutal manner—and each time the Supreme Court had set aside the verdict, under pretense of error, for the silliest reasons. The public had come to look upon the Supreme Court as a body who made it their sole business to find pretended errors in trials, in order to block the way in bringing about the conviction of desperate criminals.

But we have not the space now to spare to examine the claims of the profession of law of benefiting the community by their learning in jurisprudence. We have a case in mind of seeking after "rights" by calling into exercise the beneficent action of our modern, high-toned, learned jurisprudence that, if we should mention all the facts, we fear we would be suspected of exaggeration, and therefore we will state only a meager outline. A gentleman who had felt himself greatly wronged, encouraged by a legal light, began suit in search of redress: He waited two or three years before the court reached his case in course. When it came up for trial, a charge to the jury by the judge, that astonished all in its exposition of the law, lost him the suit in the Common Pleas Court. The District Court set aside the verdict, granting a new trial. An appeal was taken on this decision to the Supreme Court, where matters rested for over two years before the case came up for hearing. It was then discovered that although the Common Pleas Judge had certified that the docket (we believe that is the name for papers filed in appeal) had been signed by him, and ordered certified to as correct, he had done nothing of the kind, and consequently the case was ordered thrown out of court at the expense of the plaintiff. What an exalted opinion the plaintiff must have had of the great blessings conferred on the world by modern jurisprudence! Would not one have a better chance for justice among Mohammedans and Hindoos. After six years' waiting, and an expenditure of some hundreds of dollars, the case was thrown out of court, and not even its merits examined into. Some may say that the judge was sleepy when he certified that all was correct, and a mistake followed which could not be avoided, but we think by this time the *science of law* had made such progress that a party to a suit would not suffer terribly from the carelessness or other accident in a sleepy judge.

But, as we have stated, we must postpone until another time an examination of the claims set up by legal men, that their profession takes the lead in human progress, the medical profession occupying a very inferior position.

We can say much upon the subject, and can illustrate by some striking examples. We think that some discussion is needed. There has been silence too long. Even some indulgence in personality would not be amiss.

GUITEAU'S BULLET OR DR. BLISS.—This is the heading of an article in the *Commercial Gazette*, constituting a telegram to that paper from New York. It says: "Deputy Collector Rockwell, a brother-in-law of President Garfield, repeated a lecture last night upon the career of his illustrious kinsman, in the course of which he expressed the deliberate opinion that Garfield's death did not result from Guiteau's bullet, which had become encysted, but from the errors in treatment of the attending physicians. The many regretable things surrounding this distressing case seem to have followed as a consequence of the connection with it of Dr. Bliss, of unenviable reputation. The connection of this Washington physician with the case was never pleasing to Mrs. Garfield. We are stating nothing of a private nature when we say that this good lady not only did not sanction, but from first to last disapproved of, the professional relations of Dr. Bliss to her husband's case. Mrs. Garfield knew that the general reputation of Dr. Bliss in the District of Columbia was not good. She knew that his hasty conclusion that the wound was necessarily fatal was unwarranted. It was manifest that the unskillful probing was based upon that assumption, and that proper treatment was too long delayed. It is now obvious that the latest and best precautions against blood-poisoning were not at first taken And the weeks and months searching for the ball was so unscientific that the surgeons located it just one inch less than a foot and a half from the actual point where it was harmlessly embedded. The consulting physicians, Drs. Hamilton and Agnew, were and are professional gentlemen of high standing, but having been called into the case by Dr. Bliss, they could not dissent from his chosen course of treatment without rendering themselves liable to dismissal. We have it from the son of one of these gentlemen that his father disapproved of Garfield's treatment."

In regard to these statements of this brother-in-law of President Garfield (Rockwell married a sister of Garfield's wife, who is a plain, well-disposed lady, who never claimed any superiority over her village neighbors), the *Commercial Gazette*, of this city, makes the following remarks: "A brother-in-law of President Garfield has been foolish enough to deliver an alleged lecture, in which he contends that the death of Garfield was not caused by the gunshot wound, but by medical mistreatment. It is a pity that any one so nearly related to our second martyred President should be such an ass. Guiteau's pistol shot shattered two joints of the backbone of the President, and only a clot of blood prevented his bleeding to death on the spot. There will be a horde of idiots after Grant's death who will howl through the years that if they could have had a show with some particular salve, they would have cured the devouring cancer. Such people are always with us."

The object of Rockwell in making the remarks he did about Dr. Bliss and President Garfield's wound was to draw the attention of the public to himself. Some persons can not discriminate between notoriety and renown, and we think that such is the case with the brother-in-law of the assassinated President. We will admit that we did not become filled with admiration of Dr. Bliss when he appeared above the surface as the result of attending upon President Garfield, but that he succeeded in forcing his services upon the distinguished patient, in spite of the aversion of his family, we do not believe; nor do we believe that the eminent consulting surgeons, Drs. Hamilton and Agnew, assented to a course of malpractice for fear of discharge from the case. No physician can afford to give his approval of a treatment of a case that he believes to be radically improper and injurious to the patient. Besides the wrong he would be committing by so doing, he would greatly endanger his own reputation. But the statement is absurd that Drs. H. and A. feared that their connection with the case would be severed if they should undertake, in order to save Garfield's life, to oppose Dr. Bliss' course of treatment. A declaration from surgeons of their high standing that the course of treatment that had been pursued was improper and injurious, would have met with such universal strong assent that Dr. Bliss would have been compelled to succumb and retire himself. He could not have continued the surgeon in charge, under such circumstances, even if he had possessed the confidence of the family, for President Garfield, being looked upon as belonging to the people, the public having far more confidence in the professional skill of Drs. Hamilton and Agnew than in his, would have brought such a pressure against him that he could not have withstood it. It would certainly be very much to the discredit of Drs. H. and A. if it was a fact that they had assented knowingly to any mistreatment of Dr. Bliss in the case in order to keep from being discharged.

If Rockwell was possessed of common sense he would not have made such statements as he did in his alleged lecture, for a moment's reflection would have shown him that any one with common sense would have seen at once that they were not true.

A Lively and Newsy Medical Journal.—A lively and newsy medical journal is always interesting to us, and we always take pleasure in reading such a one. It may not always contain as large an amount of solid scientific information as some slow-plodding medical publications, like the *Boston Medical and Surgical Journal* and the *American Journal of Medical Sciences*, but, notwithstanding, it subserves a useful purpose. It stimulates the mental energies, directs the thoughts into new channels, and often discovers facts of practical importance that might have remained concealed. One of the liveliest and newsiest medical journals with which we are acquainted, is the *Peoria Medical Monthly*. We propose to make a few selections from it:

"The *Medical Record* says that, 'When a poor medical college feels particularly poor, it opens its doors to women.'" We know just such an institution. In the days of its prosperity it firmly and constantly refused all female applicants, but now its doors are thrown open to all ladies who feel disposed to enter.

"'No money can be made out of dead men,' says a Chicago pathologist. He has evidently forgotten the undertaker."

"'Iowa is the illiterate physician's paradise, no requirement being made for the practice of medicine. If a man or woman has the gift of gab, lots of cheek, especially if he or she can dress well and make a good appearance, they will succeed in making a practice. The less education he has, the better. Little or no moral character required, either. This is the status of the medical profession in Iowa.'—*Iowa State Medical Journal.* This was the condition of things in Illinois prior to the passage of our Medical Practice Act in 1877. We are not yet free from quacks, but their number is constantly decreasing."

"Dr. A. Jacobi, of New York, is having a lively correspondence with Dr. J. V. Shoemaker, of Philadelphia, in relation to the statement made at New Orleans, by Dr. S., 'that new code men made threats at Copenhagen, that if they were not recognized they would use their influence to prevent the International Congress from coming to the United States in 1887' Now as Dr. Jacobi is the only new code man on the general committee, he very pertinently requests an explanation from Dr. S. So far he has failed to receive it, and he is consequently vexed in spirit. Dr. Shoemaker should rise and explain."

"We made promises of improvements in our journal. These improvements cost money, *but the friends of the* MONTHLY *have always been prompt in its support in the past, and we feel confident that they will not allow their kindly interest to wane now.* We have some heavy bills to pay by the 20th of next month. Are we asking too much, if we ask every subscriber who owes us anything to pay it now? The money due us is already earned." The italics in this quoted paragraph are ours.

We wish we could say, with our contemporary, in regard to the MEDICAL NEWS, what he says of the subscribers of the *Monthly:* "The friends of the MED. NEWS have always been prompt in its support in the past." While we have not a few subscribers who remit promptly at the beginning of each year their subscription money, without waiting for a bill, we have some who let months, yea, years, pass without paying. Shall we make the confession? We have finally erased names of parties *owing us for five and six years.* And yet what an ado those physicians would make if they were treated in the same way by their patrons who are able to pay them! We have found it poor policy to trust long, for those who will take a medical journal for years without paying for it, in consideration of the kindness for trusting them for a long time, will direct the journal to be discontinued on remitting, when they have finally been brought to pay in some manner. Tacitus has well said that persons hate those whom they have injured. Our worst enemies are those who, having subscribed for the MEDICAL NEWS, received it regularly for several years without paying for it—our offense being that we trusted them.

PERSONAL.—Dr. Philip Zenner, of Cincinnati, was elected an active member of the "American Neurological Association" at its late meeting. The Association meets annually—the latter part of June.

Dr. Zenner has contributed to various medical journals a number of interesting papers upon neurological subjects, and we have no doubt he will be regarded as a valuable acquisition to the membership of the society.

GLYCERINE IN ACUTE NASAL CATARRH.—Cotton saturated with glycerine and introducd into the nares relieves the congestion in a few minutes.—*N. Y. Med. Jour.*

. A POCKET-CASE FOR SALE.—A physician has left with us for sale a pocket-case of instruments. It is known as a Dr. Gross case, and quite new—shell handles and complete in everything. Maker's price is $25. We are authorized to sell for $15—a bargain.

We are also authorized to sell the very latest editions, entirely new, of Bryant's "Surgery" and Emmett's "Gynecology," both bound in leather, at 33 per cent. off from publishers' price—namely, $5.00 for Bryant and $4.00 for Emmet's. The publishers' prices are $7 50 for the first and $6.00 for the other. If sent by mail, 25 cents should be added.

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Original Contributions.

Report on Cholera in Europe in 1884 and 1885.

BY D. N. KINSMAN, M.D., COLUMBUS, O.

CHOLERA appeared along the coasts of the Red Sea, and later in Egypt, during 1883. Here it was studied by Koch and the French Commission under Strauss. At Toulon the first case occurred on June 14, 1884. The second case occurred the next day; both cases were fatal—one in eight hours, the other in forty-eight. Both cases occurred in sailors who had not left Toulon for five months. To this time it has been impossible to find how cholera entered Toulon. On the 21st another case occurred at the College of Toulon. This case produced profound impression when the patient died in six hours. On the 22d there were three deaths.

On the 26th of June a student who had come from Toulon died at Marseilles, and on the 27th another student was seized. From this point of infection on European soil, cholera spread slowly in all directions—into Italy, Switzerland and Spain. While the epidemic has spent its force in all the other countries, it has continued in Spain, and now is prevailing with great severity there. Although the number of cases, compared with the population, has been small, the mortality, compared with the whole number of cases, has been large.

The epidemic reached Paris November 4, 1884, and prevailed there till December 18, 1884. The total number of cases reported during this period was 1,344, of whom 596 died, or an average of 44 per cent. The mortality from cholera in Paris in 1832 was 18,654; in 1849, 19,184; in 1853 and 1854, 8,096; 1865 and 1866, 12,080; 1873, 885.

A sixth epidemic of cholera threatens us. Already, several times, have cholera-infected ships approached our coasts, and the disease has been kept out of our country by quarantine and the vigilance of our foreign consuls.

It is more than likely it will gain an entrance this year. What can we gather from the experience of the last two years which will be of service to us? Theories have been many as to the nature of the disease. The older—which attributed cholera to the epidemic constitution of the season, to "animalcular hazes," etc.—has been abandoned. Broussais and Chapman attributed cholera to disorder of the nervous system. Snow, Farr and Budd believed the germ resided in the stools and vomit, and this was the foundation of the parasitic theory.

Pettenkoffer says cholera depends upon the rise and fall of ground-water and fecal fermentation. Cholera is a miasmatic, infectious disease, and is dependent upon a living contagion.

This opinion is now almost universally received. Parkes, Ellis, Queckett and Bowman sought the germ in cholera stools in 1846. In 1866 Hallier cultivated organisms found in cholera stools, which are figured in Aitken's "Practice of Medicine." Many other mycologists have worked in this field, and the organisms described as peculiar to cholera are as numerous as the reporters.

In 1883, Dr. Robert Koch, who had already distinguished himself as a mycologist, and chiefly by his discovery of the *bacillus tuberculosis*, was appointed by the German Government as the head of a commission to proceed to Egypt and investigate the nature of an epidemic prevailing there, concerning which there was difference of opinion. Previous to this Koch had examined the intestines of four persons dead with cholera, which had been sent to him from India. Here he met bacilli of a peculiar form, and when he came to make his observations in Egypt, India, and subsequently in Europe, he met the same micro-organisms. Under date of September 17, 1883, Koch reported. The principal facts I condense from this report. At the installation of his laboratory in Alexandria, the material placed at his disposal consisted of twelve cholera patients and ten cadavers dead of the disease. All the patients had symptoms of Asiatic cholera. The blood, vomited matter and dejections were examined. The blood contained no micro-organisms; the vomit few; the dejections important masses of them. The dejections were used for the inoculation of animals. Autopsies were made upon three Nubians, two Germans, four Greeks and one Turk, of ages varying from two to sixty years. These autopsies were made at periods varying from some hours to immediately after death. Thus he avoided putrefaction organisms. The state of the cadavers left no doubt but he was dealing with true cholera. He was unable to find any infectious organisms in the blood, lungs, spleen, kidneys and liver, which, in other infectious diseases, are the seat of micro-parasites. In the contents of the intestines, as in the intestines of the four choleraics he had received from India, there were enormous masses of micro-organisms found of the most variable character. None of these varieties were especially dominant. Evidences were wanting to show that there was a relation between these micro-organisms and the disease process. On the contrary, the intestine itself gave very important results. With the exception of one case, which, many weeks after recovery from cholera, died of consecutive disease, all cases showed in the walls of the intestine a certain kind of bacteria, which, from their length, fall in the class of bacillus. As to size and form they most resemble the bacilli of glanders. In the cases where the intestine revealed, under microscope, the slightest modifications, the bacilli had penetrated into the utricular glands, and thus caused marked irritation, indicated by dilatation of the lumen of the gland and masses of round cells with many nuclei in the interior of the gland. Frequently the bacteria seemed to have broken a road behind the epithelium of the gland and slipped in great numbers between the epithelium and glandular membrane.

Moreover the bacilli had installed themselves in great numbers upon the surface of the villosities and penetrated their tissue. In grave cases, marked by bloody infiltration of the intestinal mucous membrane, the bacilli are found in large numbers, and their invasion is not limited to the utricular glands, but they have penetrated the surrounding tissue, the deep layers of the mucous membrane, and, in some cases, even to the muscular tunic of the intestines. The villosities may also be peopled with numerous bacilli. The principal part of this disturbance is found in the small intestine at its lower part. If the presence of bacilli had not been demonstrated in fresh cadavers, this symptom could not have been utilized, especially as putrefaction can produce a similar bacterial vegetation. Except for this, I should not have been able to attach the least importance to the fact that, more than a year ago, I had in the intestines of a cholera patient received from India, discovered bacilli with the same disposition as I have seen to-day in Egyptian cholera. This result had always been supposed to be due to putrefaction which follows death.

There is, then, a similarity of condition in the intestines of Egyptian and Indian cholera patients.

There is no doubt, then, some relation between these bacilli and the cholera process. Nevertheless, the coincidence of the process with the bacilli does not prove the bacilli are the cause of the cholera. The inverse may be true.

Two hypotheses are before us: is the infection, or on the contrary, is the invasion of bacilli, the primary process? To settle this question the bacteria must be isolated, subjected to clean culture and the disease produced thereby upon animals.

Inoculations have failed upon rabbits, guinea pigs, dogs, cats, monkeys, pigs and rats.

The only experiment of value is that of Theirsch, who has seen mice fall into diarrhœa and die when their food was mixed with the discharge of cholera patients. His experiment has been confirmed by Burdon Sanderson. Such is the report of Koch on Egyptian cholera. He has since studied the disease at Bombay and in the cities of Europe where it prevailed last summer, and has not modified his views.

The French Commission reported October 25, 1883. They say the etiological problem of cholera consists in, first, finding a special micro-organism; second, reproducing the disease by means of the micro-organism; third, isolating the micro-organism by culture and developing the disease by means of the culture products. They made a series of autopsies upon the cadavers of persons of different nationalities and ages. They met the same bacterial manifestations which Koch describes in the contents of the stomach and intestines, and failed to find a micro-organism in the blood. They excluded putrefaction as a cause of the bacilli.

One of the most common forms is a slender bacillus recalling the aspect of the bacillus tuberculosis. At certain points this variety manifestly predominated, forming nests and strands which penetrate the sub-mucous membrane without invading the blood vessels or the muscular tunic. This entero-mycosis is specially marked in the lower part of the small intestine; in certain cases it exists in the jejanum and duodenum. The stomach, cæcum and large intestine are free from it.

If there is a relation of cause and effect between the microbes in the intestinal tunics and the cholera, the microbe ought to be found in all cases. *This was not the case in our researches.* This is the report of the French Commission. They failed in their culture inoculations. (*Arch. Gen. de Med.*, October, 1884.

I take the following from the *Progres Medical*, June 6, 1885. In October, 1884, Ermengem made the following report to the *Societe belge de Microscopie.* His conclusions are identical with those of Koch. He constantly found the comma bacillus in cholera stools, and when their identification with the microscope was not easy, he had recourse to their culture by placing a small quantity of the intestinal discharge upon wet cotton in a moist chamber. At the end of twenty-four hours a considerable number of characteristic bacilli appeared. He never has seen the least trace of sporulation. He severely criticises the statements of Finkler and Prior, who pretend to have found the comma bacillus in the stools of cholera nostras. He says these authors in cultivating their bacilli have obtained an evolution altogether peculiar and outside of all known observations in microbiology. According to these authors, their bacillus, at the end of forty-eight hours, becomes fusiform, a spore appears at each end; the latter become free, grow in their turn, change into curved rods. These increase in length sometimes at the end, sometimes in the middle, then disappear. Soon there may be seen in the culture fluid a great number of curved bacilli. Neither Koch nor his pupils have seen any such things. Ermengem has never seen in cultures of cholera bacillus any except comma and spirilium forms, longer or shorter, free or entangled. By studying the specimens of Finkler and Prior in detail, and comparing them with culture of the Indian cholera, the author finds many and considerable differences between the two cultures, which may be determined by the microscope. In the first are many kinds of microbes. The organisms of Finkler and Prior give to the culture upon gelatine a fluorescent tint without liquefaction of the medium, while the comma bacillus liquefies the gelatine rapidly. To sum up, Ermengem has found in the *so-called pure cultures of Finkler and Prior* not less than four kinds of bacilli, of which two are straight and two are curved, and a yellow *chromogene* micro-coccus. He has completely demonstrated this by isolating each of the species, then sowing three species of the bacilli in the same tube. Koch has come to the same conclusions on this matter.

In 1884 Strauss and Roux, after a post-mortem upon the body of a patient who had died of fulminant cholera, found such great quantities of the comma bacillus in the alkaline mucus which lined the small intestine that they concluded the comma bacillus had a great *rôle* in the production of cholera.

Many have entered this field. The comma bacillus is alleged to have been found in dysenteric discharges, vaginal mucus, the discharges from a uterine epithelioma, in the filth of sewers, common diarrhœa and on decaying cheese. Koch and his pupils have examined all these, and maintain their position, that these specimens are not comma bacilli, as shown by their forms and behavior during culture upon gelatine. Klein has swallowed the bacilli of the pure culture from cholera stools. Bouchardat has fed quantities of cholera stools to men, and the subjects of their scientific experiments have escaped, although there is but little question they were swallowing the active agent in the production of cholera. But thousands of involuntary experimenters have died witnesses to the efficiency of this mode of inoculatlon.

Rochefontaine, from experiments upon himself and guinea pigs, made with cultures from the stools of cholera patients, came to the following conclusions:

1. The stomachal ingestion of the cholera microbe may produce no effect.
2. Hypodermic injection of large doses of these cultures may determine more or less severe inflammatory symptoms.
3. If the dose is small no effect is produced.
4. The blood of men and animals in the normal condition has the property of destroying the microbe of liquid stools of cholera patients, cultivated upon peptonized gelatine.

JUNE, 1885. ARCH GEN. DE MED.

If the bacillus is the cause of cholera, and yet fails to infect when injected or swallowed, how does it act? In anser to this question Koch suggested the bacillus might produce a ptomaine, which acted after absorption. Roux said if the bacillus be the cause of cholera, it secretes a ptomaine, a poison which, if absorbed, will produce cholera. It is necessary to extract this poison in a soluble form from the pure culture and by injection produce cholera symptoms. Ferran supposes the cholera process probably remains localized in the intestines, and the inversion of osmotic phenomena depends upon a profound change in the cells and liquids of the economy, due to a substance secreted by the bacilli resembling diastase, and acting after its fashion.

Pouchet found in the blood and urine of cholera patients a ptomaine, an alkaloid, a trace of which introduced under the skin of a frog produced immediate death. While preparing this, both Pouchet and his assistant suffered from chill, nausea, cramps, gastric disorder, glycosuria and anuria. (*Progres Medical.*)

Nicati and Reitsch say:

1. Pure cultures of comma bacilli have the characteristic odor of cholera stools.

2. Cultures of eight days or less in age, when freed from bacilli by Pasteur's filter, whether grown in meat broth or on nutritive gelatine, when injected into the vessels of animals produce more or less grave symptoms, and may cause death.

3. The culture fluid injected under the skin in even greater quantities produces no effect.

4 Recent cultures filtered when injected under the skin or into the veins produce no effect.

Villiers extracted an alkaloid from the kidneys and intestines of cholera patients which produced variation of heart-beat and severe nervous trembling.

In 1865 M. Robin asserted that the blood of a cholera patient was only infectious during the algid stage.

Ermengem, after the report of Nicati and Reitsch, undertook the subject of inoculations.

In August, 1884, Ermengm presented to the *Academie de Medicine de Belgique*, a report of his observations upon intra-intestinal inoculation of comma-bacilli upon dogs.

Once he saw an abundant multiplication of the bacilli after an inoculation in a loop of the intestine contained between two ligatures.

The inoculation of large doses (1 gramme) of the pure culture of the comma-bacillus in the intestines of healthy adult guinea pigs, killed them in from two to eighteen hours, with symptoms of cholera, and numerous comma-bacilli in the intestines, with none in the other organs. Inoculations made with one drop and even with a twentieth or an eightieth of a drop caused the animals to perish sometimes in forty-eight hours, and sometimes only at the end of four to six days. Koch has obtained analogous results with one-hundredth of a drop. In all these cases the intestine was absolutely full of comma-bacilli. The walls were infiltrated with lymphatic elements; the blood corpuscles altered, and three times the blood contained comma-bacilli in abundance.

If this intestinal liquid is taken and diluted, so as to inoculate a new series of guinea pigs, one drop or even the fiftieth of a drop to each animal, when the animals were killed at the end of twelve or forty-eight hours, had produced the same peculiar changes mentioned above. Finally, introducing the same dose of the intestinal liquid of the second series of animals into a third series, causes these animals to perish in like manner.

These culture fluids were deprived of all micro-organisms, either by Chamberland's filter or by exposure to a heat of 60 to 70 Cent. That the liquids were sterile, was shown by unsuccessful attempts to cultivate by sowing upon fresh gelatine.

If a dose of three or four cubic centimeters of this fluid was thrown into the duodenum of guinea pigs, the animals died in an hour, with symptoms of extreme algidity. Guinea pigs which had not perished from cultures of the bacilli were inoculated anew and perished. Therefore a previous inoculation does not confer immunity.

1. We may conclude from the foregoing that cholera depends for its cause upon the comma-bacillus.

2. That the comma-bacillus produces a ptomaine.

3. That a ptomaine is found in the blood, urine, kidneys and intestines of cholera patients, capable in small doses of producing symptoms of choleraic intoxication.

4. This ptomaine is not present in fresh cultures, but is developed in them as they grow older.

5. That the toxicity of the blood in the algid stage depends upon the ptomaine, which is there in quantity.

The inocuousness of the first cultures and their subsequent activity corresponds to what we have learned by observation of epidemics and experiments. The germ is inactive when it leaves the body; it undergoes a change, which renders it active. Is this change the formation of a ptomaine? or is it necessary for these bacilli to reach a certain development by exposure to the air before they become ptomaine-formers?

These facts alleged by so many experimenters are a complete answer to Klein and Bouchardat. It seems beyoud a doubt that the bacilli may be in full form in a culture medium, and yet the fluid or solid medium be inocuous, while it becomes toxic later.

There have been endless attempts to deride "Koch and his bugs" by shallow men. Liron, of Marseilles, found 25,000 bacilli in every quart of water drawn from the cock in his laboratory; water from the river Rose contained the same number during the cholera epidemic. After its cessation, he found 25.000 bacteria to the quart; on this he raised a noise, yet he forgets to tell us within a week after cholera appeared in these very precincts.

It has been shown by Schiff and others that the liver has a function aside from those usually attributed to it, (the destruction of ptomaines formed in the intestines during the process of digestion by the action of bacilli ever present upon the food). Acting upon this idea, Nicati and Reitsch ligated the ductus communis choledochus in guinea pigs, rats and dogs, and by the injection of the bacilli produced cholera.

It has been found by several observers that the amount of biliary acids in the blood of dead choleraics is greater than that found in the blood of a person dead from a blow with sword, or that of a patient dead of a hepatic affection. The quantity is equal to that found in the blood of a dog after ligation of the common duct. And yet because there is a ptomaine in the stools of cholera patients, with different forms of bacteria, and as a result different kinds of fermentation, we can not say that death in cholera is dependent upon cholemia.

There is little else to be added on the subject of etiology. The poison enters the organism by means of food and drink; much more rarely by the lungs, though this is not to be denied.

Soiled water, insalubrious surroundings, insufficient food, grief and anxiety, overwork, have their influence upon the receptivity of patients.

Onimus has called attention to the relation existing between the ozone in the atmosphere and the prevalence of cholera. During the epidemic, the proportion was constantly diminished.

At Marseilles—mean for July, 1884, 0.86; July, 1883, 2.17.

At Paris—mean for November, 1884, 0.44; November, 1883, 1.82.

He says the persistence of ozone hinders the progress of cholera.

The special contributions to the pathology of cholera have been discussed while considering ptomaines and the bacillus. I may say that M. Strauss, in the Hospital Tenon, mentions that in fulminant cases of cholera, the duodenum jejunum and the upper portion of the ileum present the creamy mucus covering which Grissolle mentions, while in the lower portions of the ileum and large intestines there is still fecal matter, colored with bile. "In this man, struck dead by the disease, the upper portion of the intestine alone was affected by cholera, while the lower portion was sound." The creamy covering mentioned above is the nidus for myriads of bacilli, whose examination led Strauss and Roux to concede their close relation with cholera. In the algid form of cholera the temperature falls to 35 C; in the asphyxiated form it rises to 40 C.

The urine contains indican uroxanthine albumen. A catarrhal condition of the stomach and bowels permits the localization of the bacilli. As to the treatment, many theoretical suggestions have made some wise, more otherwise.

A rabbi of Oran suggested the wearing of a red ribbon for prevention, and it seemed as if the cholera was attracted by it, for nearly all who fell were wearing it. One doctor teaches cholera depends upon an excess of water in the body, and recommends a concentrating diet, consisting of sugar, salt, meats and oils, while his friend over the way, "olli subsidens," gravely recommends torrents of drinks to wash the poison out of the body.

One proposes to dissipate the cholera-poison by firing cannon on the hilltops; and borax, oxygenated water, ether, tannin and copper are recommended. One facetious Gaul recommends to tie a bag of camphor around our necks and laughing, while yet another finds the cure-all in spiritus mindererus.

The treatment which was found most useful at the hospital Bichat, was as follows .

I. Hot baths, for algidity, beginning with a temperature of 34 C., increasing to 38 C. 40 C. was found exceedingly painful to the patients. Repeated every two or three hours. Two or three baths removed algidity.

II. Sub-cutaneous injections of ether and caffein, in dram doses of ether, alternated with caffein in from three to five grain doses.

℞ Caffeine, . .	grammes,	3
Salicylate of Soda, .	"	4
Water, . . .	"	6

III. Profuse use of Van Swietens liq. hydrarg. corrosive chloride, forty grammes by mouth, and sixty grammes by injection, every day.

IV. Hypodermic injections of morphia very cautiously for nausea, pain and dyspnœa.

Freedom in use of drinks, cold and fresh No attempt is made to control diarrhea. Intra-venous injections were used in many instances as in 1873. Hayem, in the hospital of Saint Antoine, only reports successful cures. The others only report amelioration. Hayem reports the use of the following injection, in quantities from two to two and one-half quarts for an adult, in one hundred cases, with twenty cures.

Distilled water, ...	one liter.
Pure common salt, . . .	five grains.
Pure glauber salt, . . .	ten grains.

Mix. Filter. Heat to 38 C. and inject with transfusion apparatus, taking from thirty minutes to three-fourths of an hour. Mention is made of the injection or transfusion of the fluid of a case of chronic peritonitis by Lasegue. Milk has been used, but it is useless.

Manoni proposes a transfusion by the following fluid:

℞ Sodic chloride, . . .	4 grammes.
Potassic chlorate, . .	1 gramme 50.
Quinine hydrochlorate, .	0 gramme 60.
Aq. Dist., . .	600 grammes. M.

Introduce into the uncovered vein by means of a cutting canula, in connection with an elevated reservoir.

In preventive medicine there is little to add. The discovery of the bacillus was "discounted in advance," to use a stock-broker's phrase, when the profession had recognized that the poison of cholera was inactive when discharged from the body, and subsequently became active. Acid drinks were suggested by Koch and his school for the destruction of the bacillus, but acids had been administered since 1832.

Terrestrial quarantine against cholera has so far been found impracticable. And thus far no marine quarantine has been so perfect that cholera has not found some fissure to enter.

Fumigations are useless. The contagion is fixed and must be met with concentrated agents. Matters of personal hygiene are of the highest import, as these comprise all which relates to food and drink supplies, and the salubrity of the dwellings.

One thing is to be kept in mind: Human intercourse only diffuses cholera. Cholera never travels faster than man along any route, and never travels without man.

Cholerization, as proposed and practiced by Ferran, in Spain, demands some mention. Ferran says if guinea pigs be injected with a little less than is necessary to kill them, of a virulent culture of cholera microbes, they acquire an immunity, and are capable of resisting doses which would have proved fatal before. "Ferran has inoculated 5,000 persons, and his friends and partisans 12,000 more, and this has been done without remuneration." There is immense excitement about this in Spain, and it is asserted that of all the persons confined in a public asylum, the only persons struck with cholera were those who refused inoculation. In Alcira dwell 16,000 inhabitants; 7,043 have been inoculated once, 4,117 twice, 4,840 not at all. Of the 4,840 not inoculated, 95 had cholera; 45 died. Of the 7,043 single inoculations, 12 had cholera, 3 died. Of the 4,117 re-inoculations, 6 had cholera; 5 cures, 1 yet sick. These are the statistics of Ferran's disciples. The people of Spain are carried away with an enthusiasm for Ferran, and many of the daily political journals have a section devoted to Ferran. It is needless to say Ferran stands alone in his history of the evolution of the cholera microbe. He uses no colors to stain his preparations, and uses a peculiar mode of sterilization, which would seem to us insufficient. His experiments with the cultures have the following course: At the sixth hour, after the introduction of one cubic centimeter into each arm, of a culture fluid containing spirilia and comma-bacilli, the patient has acute lancinating pain in the hands and arms, malaise and fever. Ten hours after intense chill, cold extremities, nausea, the arms hot, swollen and very painful. Fourteen hours, continuation of general symptoms, fever always, swelling, and local pain. Fifteen hours after an inoculation, general state normal, tumefaction disappears in a few days. Such is the history of a strong inoculation ; frequently the symptoms are less accentuated, and all is finished in 24 hours. Sometimes there are symptoms resembling cholera, marble coldness, lipothemia lassitude, cramps, vomiting, hebetude, cold and viscous sweats, frequent discharges from the bowels, but no diarrhea.

The report we have just given shows septicemia induced by inoculation. You will observe no mention is made of accidents. But it is true that, from the occurrence of erysipelas, and a want of clear evidence of any good being produced, inoculation was stopped by order of the health authorities, until it could be investigated by a commission. The inhabitants mobbed the health authorities and created other disturbances. Finally the commission reported, that as inoculation was free from danger and caused no harm, it was best to remove restrictions, as it prevented panic, and created confidence. The sole good is then in the mental composure the process produces in individuals blinded by enthusiasm. Ferran fails in intestinal inoculations, and succeeds in the arm. He watches a peculiar and strange evolution of a cholera microbe without staining fluids, and in so many ways, differs in methods and results, that it is difficult to see, if the scientists of Europe are correct, how he can be.

A letter recently published in the *Journal of the American Medical Association*, from a pupil of Koch, who visited Ferran to study his methods, shows his whole proceeding to be the vilest humbuggery—a conclusion which the continued increase in the ravages of cholera in Spain has already forced upon the minds of all thoughtful physicians. If the cause of cholera is a ptomaine, produced by Hic comma bacillus, then we might expect to be able to inoculate with dilute solutions of morphia against narcotism by this agent, as against cholera by the means proposed. Inoculation has so far succeeded, when the germ producing the disease was a something which grew and multiplied in the organism, and thus far has succeeded but in a very few diseases.

Tyrotoxicon—Cheese Poison.

ABSTRACT OF A PAPER BY PROF. V. C. VAUGHAN, M.D., PH. D.

At the Meeting of the Michigan State Board of Health, July 14, 1885.

Reported for the CINCINNATI MEDICAL NEWS.

DR. VAUGHAN presented a report of his investigations on poisonous cheese. It is well known that cases of severe illness follow the eating of some cheese. Such instances are of frequent occurrence in the North German countries and in the United States. In England they are less frequently observed; while in France, where much cheese is made and eaten, these cases are said to occur very rarely. A few years ago, the reputation of a large cheese factory in Northern Ohio was destroyed by the great number of cases of alarming illness arising from eating its cheese. Dairymen know this cheese as "sick" cheese.

KINDS OF CHEESE THAT ARE POISONOUS.

A German author says: "The numerous kinds of soft cheese, prepared in small families, or on small farms, are generally the cause of the symptoms; while it is quite exceptional to hear of symptoms arising from the use of cheese prepared in large quantities." Some two years ago, a family in Alpena, Mich., was poisoned by eating of cottage cheese; but the cheese which posioned so many in this State last year was made at one of the largest factories in the State, and by a thoroughly experienced cheese-maker. The old foul-smelling cheese, such as Limburger and Sweitzer, have never been known to be poisonous.

EFFECTS OF THE CHEESE.

The symptoms produced by "sick" cheese, as reported by German and American physicians, agree quite closely and are as follows: Dryness of the mouth and throat with a sense of constriction, nausea, vomiting, diarrhea, headache, sometimes double vision, and marked nervous prostration. In rare instances the sufferer dies from collapse. As a rule, recovery occurs in a few hours, or at most after a few days. The symptoms of cheese-poisoning and those of sausage, canned-meat and fish-poisoning are very similar; though death results more frequently from the others mentioned than from cheese-poisoning.

APPEARANCE OF THE CHEESE.

The samples of cheese examined had no peculiarities of appearance, odor or taste, by which it could be distinguished from good cheese. It is true, that if two pieces of cheese, one poisonous and the other wholesome, were offered to a dog or cat, the animal would select the good cheese. But this was probably due to an acuteness of the sense of smell possessed by the animal and not belonging to man. Indeed, if a person tasted a cheese, knowing that it was poisonous, he might detect a sharpness of taste which would not ordinarily be noticed.

HAVE WE ANY READY MEANS OF RECOGNIZING POISONOUS CHEESE?

There is no certain means, aside from a chemical examination, by which a poisonous cheese can be distinguished from a wholesome one. The most reliable ready method is probably that proposed by Dr. Vaughan a year ago, and it is as follows: Press a small strip of blue litmus paper (which can be obtained at any drug store) against a freshly cut surface of the cheese; if the paper is reddened instantly and intensely, the cheese may be regarded with suspicion. When treated in this way, any green cheese will redden the litmus paper, but ordinarily the reddening will be produced slowly and will be slight. If the piece of cheese be dry, a small bit should be rubbed up with an equal volume of water, and the paper should then be dipped in the water. Dr. Vaughan does not regard the above test as free from error, but as the most reliable ready means now known. Every groceryman should apply this test to each fresh cheese which he cuts. The depth of the reddening of the paper may be compared with that produced by cheese which is known to be wholesome.

EFFECTS ON THE LOWER ANIMALS.

Dogs and cats, at least, are not affected by eating poisonous cheese. This is probably due to the fact that they do not get enough of the poison from the amount of cheese which they eat. The pure isolated poison in sufficient doses would undoubtedly produce upon the lower animals effects similar to those produced on man.

NATURE OF THE POISON.

Dr. Vaughan has succeeded in isolating the poison, to which he has given the name tyrotoxicon (from two Greek words which mean cheese and poison). It is a product of slight putrefaction in the cheese which probably occurs in the vat, as the curd has been known to poison a person. By this slight putrefaction, or excessive fermentation, as it may be called, a large amount of butyric acid is formed, and this in the presence of the casein of the cheese is capable of developing a poison. Different samples of poisonous cheese contain different amounts of the poison. The same weight of cheese from one cake, furnished three times as much poison as that from another cake. The poison was obtained in long needle-shaped crystals which are freely soluble in water, chloroform, alcohol and ether. The smallest visible fragment of a crystal placed upon the end of the tongue, causes a sharp, stinging pain at the point of application, and in a few minutes, dryness and constriction of the throat. A slightly larger amount produced nausea, vomiting and diarrhea. The poison is volatile at the temperature of boiling water, and for this reason even poisonous cheese may be eaten with impunity after being cooked. The substance has also a marked pungent odor, and through the nose one can obtain sufficient of the volatile poison to produce dryness of the throat. This is true, however, only of the isolated poison. In the cheese the taste and odor of the poison are both modified to such an extent that they would not be recognized, as has already been stated.

The first step in the study of cheese-poisoning has now been taken, by finding out what the poison is. Efforts will be made to ascertain the means for preventing its formation.

Fucus Marina.

BY B. ROEMER, M. D., ST. LOUIS, MO.

Few genus in the vegetable kingdom present as great a variety of usefulness as the various kinds of fuci, algæ and coniferæ, belonging to almost the lowest types of vegetable organization, to the Cryptogamia Algæ, sexually considered, and to the natural order of Algaceæ, the former the genus Cryptogamia and the latter the order Algæ. It is well, however, to remark here that different botanists have classed some species under other divisions, since the Chondrus crispus, Carrageen or Irish Moss, is a Fucus by Linnæus, a Chondrus by Greville, and a Sphærococcus by Agarrh.

For centuries the sea-weeds, seatang (Germ. Seetang), have been made use of as powerful manures, their fertilizing effects extending over more than one season. In the north of Scotland and Orkney Islands the *fucus digitatus* is preferred on account of its greater strength The most of them yield, on dilution with water, a large proportion of mucilage and by distillation water, but no ammonia. The residuum contains sea-salt, iodine, bromine, etc., and the carbonates of soda and potash.

Perhaps the earliest benefits derived from those Cryptogams consist in being articles of food for man and animal; these claims have been perpetuated in their very names: *Fucus esculens*, *fucus saccharinus* (Germ. Zucker-Seetang), which, for instance in Norway, after being packed in close barrels, yields a white powder, which is used like sugar; *fucus bovinus*, the name being sufficiently explanative, etc.

Nearly all fuci are eaten when very young, and this all over the globe, the only restriction being temperate or northern climates. The *Rhodomia Palmata*, dillesh of the Irish; the *Iridoca Adulis; Porphrya Caciniata; Laurentia Pinnatifida; Alaria Esculenta; Chondrus Crispus*, falsely called Irish Moss; the Australian sea-tangle, *Laminaria Potatorum;* the Asiatic *Gelidium*, etc., belong here. The important Chondrus crispus, so-called Irish Moss, is by Bishop Gunner, more properly classed as a *fucus ovinus*, already mentioned.

The next claim of these Cryptogams is for their value in manufactures. Their extensive use by glass-makers and soap-boilers, and especially their importance in the manufacture of the general article called kelp, needs only to be mentioned. In this respect the so-called bladder kelps—*fucus vesiculosus*, or quercus marina, *nodosus* and *serratus*—stand foremost. Their percentage in iodine, etc., has for many years restricted its source to seatang, kelp, etc.

Finally, the medical profession has for centuries employed these Cryptogams in the treatment of various diseases. In speaking of a medical profession, I wish to be understood as including every rational class of house or family remedies which, brought out by the people, have finally attracted the attention of medical men, and having been approved, have become a part of our materia medica. The chemical constituents of a fucus are not characteristic of its extensive therapeutic value, no more than the analysis of the most renowned mineral water carries with it a conviction of its curative powers. Select two acres of very poor land, divide them into two parts as accurately as possible, and prepare them in every respect alike for a crop of wheat. Leaving one acre in its natural condition, you top-dress the other with, say, 400 pounds guano, and at harvest the former yields from 5 to 10 bushels, and the latter from 20 to 30 bushels of wheat. Now sample the soil from the acre under guano as smelting works sample ore for silver, etc., that is from 100 different localities well mixed, and send one ounce to the greatest analytical chemist living, and he will not detect the guano, yet it, the guano, increased the yield six times. Analysis, therefore, is at fault, and does not unlock the secrets of a latent power.

Perhaps the oldest use made of fucus was in form of a poultice to swellings, bruises, etc. Ancient sages of Scandinavia and Denmark speak of soothsayers crushing seaweed between stones and applying the moistened pulp to the affected parts. The *fucus vesiculosus* ranks, perhaps, next in order; being burnt in the open air, its black powder was administered internally, like spongia usta, in the treatment of glandular enlargements. Spongia, now admitted to be a polymorphous animal, as spongia usta, resembles in its chemical nature the fucus, and was at one time highly lauded in goitre, glandular swellings generally, scrofula and cutaneous eruptions. After having been much derided as to its efficacy in these diseases, its virtues were admitted after the discovery of iodine, and the early use is almost an instinctive medication. The black powder of burnt fucus vesiculosus was known under the name Æthiops vegetabilis. Its juice was also administered internally with its local application for the same diseases.

But this article was especially undertaken to draw the attention of the medical profession to a species called *Fucus Marina*, of which the Peacock Chemical Company, of this city, is preparing an elixir. Having had at my disposal about four pounds of this preparation, which I divided among eight patients, I am prepared to give a favorable opinion of its therapeutic value as claimed. Not intended to replace any of the usually employed antiperiodics, especially quinine, it owes its virtue rather to an alterative quality, and having prescribed it in six cases of pronounced malaria, I find the result as follows:

All these cases had been under quinine treatment. Whenever a hepatic complication was diagnosed, I gave:

℞	Mass. pil. Hydrarg.	3 grains.
	Quin. Sulph.	4 grains.
	Ol. Piper. Nigr.	1 drop.
	Ex. Hyosciam. Nigr.	½ grain.

M. Fiat. Pil. 2.

To be taken at night and followed next morning, if required, by a mild aperient. During the day I usually order 10 to 15 grains of quinine, and repeat on the next. The quasi typhoid character of the malaria remained, however, unchanged, and heretofore I altered my treatment to different remedies, omitting the quinine. The elixir of fucus marina, however, in the number of cases specified, gave me perfect satisfaction; in every instance the febrile exacerbation short and hastening convalescence. This result was especially marked in four cases, which had had a preliminary quinine treatment; in the two remaining cases, while recovery was perfect, three or four days additional were required, the quinine treatment being isochronic with the exhibition of the elixir. Thus, in any event, the course of malaria is materially checked by Fucus Marina, and, the system (secretions, etc.,) having been promptly prepared, it is my opinion that the elixir alone will give the best results.

Believing that the prominent therapeutic character of Fucus Marina is alterative, I prescribed the remedy in two cases of cachexia, scrofulous and syphilitic. The result, thus far, is gratifying, but time is required for a proper report. I will state, however, that in a mixed treatment for the latter disease, I omitted smilax off, and stillingia as a vehicle altogether, and gave instead full doses of Fucus Marina, repeated four to six times a day, continuing the inunction of mercurials. A success in these cases would do away with the annoying complications resulting from large doses of the iodide of potash.

P. S.—Since writing the above short synopsis on the therapeutic value of Fucus Marina, several weeks have elapsed, and I can now add that the case of *secondary syphilis* is progressing very favorably under its use; it, the *Fucus Marina* as prepared by the *Peacock Chemical Co.*, of St. Louis, fully and thoroughly taking the place of Iodide of Potassium in the mixed treatment, with this very desirable advantage over the salt of Iodine and Potash, that the stomach and digestive powers are not only left intact, but are really invigorated. Additional cases of *Malaria* have received, as already reported, prompt and lasting relief.

B. R.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illoway, Cincinnati, Ohio.

THE TREATMENT OF NERVO-PULMONARY AND OF CARDIAC ASTHMAS BY PYRIDINE.

By PROFESSOR GERMAIN LEE.

I. The sole curative medication of nervo-pulmonary asthma is iodotherapy; that is to say, iodization of the lungs and of the respiratory nervous system.

The results thus obtained in 370 cases, since seven years, will form the subject of another communication to the Academy of Sciences. But this method produces frequently accidents of intolerance, and then the patients try occasionally empirical remedies, all based upon the combustion of certain substances and the inhalation of the vapors thus produced. These vapors always hold a special substance, *pyridine*.

II. *Chemistry.*—This body (C^5H^5Az) is found in the products of dry distillation of organic matters, of the pitch of petroleum, of the principal alkaloids, in the fumes of tobacco (Wohl and Eulenberg), in nicotine (Cahours and Etord, 1880), with a whole series of substances recently studied by Oechsner in the animal oil of Dippel (Anderson), from which it is generally extracted. It is a colorless liquid, very volatile, of strong and penetrating odor, mixible with water in any proportion, and forming with the mineral acids soluble, but unstable, bases.

III. *Experiments.*— Experiments undertaken recently in connection with Dr. Bachefontaine, who had already done something in this direction in 1883, have demonstrated that this substance diminishes the reflectivity of the spine and of the medullary respiratory centre (frogs and guinea pigs). In the dog the blood pressure is about 14 centimeters of mercury; the central excitation of the pneumogastrics divided in the neck, causes it to rise to 32 centimeters, but it sinks gradually under the influence of intravenous injections of 1 gr. of nitrate of pyridine, given twenty times, and if the centripetal excitation of the vaso-sympathetic nerves be repeated, the pressure remains invariable; it is because the gray substance of the vital ganglion, impregnated with pyridine, has lost its reflex power, which is precisely that which is greatly exaggerated in asthma.

IV. Physiological and therapeutical effects of pyridine on asthmatics and those afflicted with heart troubles.—The best method of administering pyridine is to pour about 4 to 5 grammes of pyridine into a saucer, placed in the center of a small chamber of about 25 cubic meters, and then place the patient in one of the corners of the chamber, who will thus respire an air mixed with the vapors of pyridine; the seance should last from twenty to thirty minutes, and be repeated about four times per day. The absorption is immediate, the pyridine appearing very quickly in the urine.

a. The oppression diminishes considerably; the respiration becomes easy, free; the thirst for air less imperious; whilst the heart remains calm and regular, and the pulse conserves its rhythm and its force. *b.* Toward the end or shortly after the sitting, the patient's experiences are an invincible tendency to sleep. During this sleep there is a notable attenuation of the reflexes with conservation of contractile energy, which is nevertheless diminished; neither paralysis, nor convulsions, not even trembling, are ever produced by it. *c.* The action of pyridine can not be compared to that of chloroform or ether. Its special rôle is the attenuation of the spinal and medullary reflexes, and it is the more remarkable since this property is not found to the same degree among the effects of nicotine and atropine, both containing pyridine. *d.* The respiratory action of pyridine persists for a certain time; the nocturnal attacks of oppression disappear; the patient sleeps well; all want inhalations. *e.* After two or three seances, the expectoration becomes more abundant, more fluid; the expectorations losing their purulent character or their fetidness. Nothing more is discovered in the chest than disseminated mucous râles, which soon disappear, and the respiration is heard with almost its normal timbre. There are no inconveniences attending the use of pyridine, except perhaps occasionally a slight state of nausea or vertigo. In some cases the paroxysms of suffocation have completely disappeared; in others, its effects diminished in 8 or 10 days; it became necessary to conjoin the iodide treatment.

V. *Analysis of Observations.*—The observations were to the number of 14, (3 females, and 11 males, aged from 30 to 68), of these 9 were asthmatics, dividing themselves thus: 4 nervous asthma, cured; 3 asthma with catarrh and emphyzema, amelioration; 1 asthma, with dilatation of the bronchi; and 1 permanent asthma, marked amelioration; 1 case of old nervous asthma, improvement, but had to suspend treatment on account of vertigo and nausea. In the five cases of cardiac asthma, we find œdema, albuminuria, hypertrophy of the heart; and in two cases dilatation of the aorta or insufficiency of the valves, immediate and pronounced amelioration, without any deleterious influence on the heart.

VI. *Résumé and Conclusions*—Whatever be the form of the asthma, whether nervous, emphyzematous, or catarrhal, whether it be primordial or of gouty or dartrous origin, iodization is the true curative method of treatment; when iodism supervenes, then pyridine finds its use, and should be considered as the remedy most certain to cure the paroxysm; it is the best palliative, just as iodine is the most efficacious remedy.

2. Pyridine is superior to the injection of morphine; its action is more durable and much more inoffensive.

3. In simple nervo-pulmonary asthma, the paroxysms can be thus cut short in the most effective and complete manner. In the graver form of asthma, complicated with permanent pulmonary lesions, the treatment should extend beyond 8 to 10 days, to consolidate and strengthen the amelioration obtained. And lastly, even in cases of cardiac asthma, with or without renal and hydropical complications, pyridine can render us the greatest services to combat the most persistent, the most painful of all the phenomena that torment those afflicted with cardiac trouble, that is to say, the oppression, whether continuous or paroxysmal.—*Trib. Medic.*

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MILK AS A VEHICLE FOR IODIDE OF POTASSIUM.—Dr. E. L. Keyes, in *N. Y. Medical Journal*, speaks highly of milk as a vehicle for the administration of iodide of potassium. He says that in cases where a large quantity of the drug has to be given, he has found that the stomach does not rebel when milk is used as the vehicle. Ten grains or more of the iodide in a gill of milk make a palatable drink, and impart only a mild metallic taste to the fluid, which most patients find not at all disagreeable.—*Louisville Med. News.*

Selections.

Pathological Society of London.

Tuesday, April 21, 1885, J. Syer Bristowe, M.D., F. S. R., President, in the chair.

Displacement of Lumbar Vertebræ.—Mr. Arbuthnot Lane referred to a paper he read recently before this society, in which he described the modifications which the lumbo-sacral articulation underwent, owing to the transmission of the superjacent weight through it to the pelvis, in laborers. He found that they varied within broad limits, having at one extreme the cases in which the center of pressure fell behind the body of the fifth lumbar vertebra. In the other extreme the center of pressure fell somewhat in front of the body of the last lumbar, so that there was a marked tendency to forward displacement of it, which was opposed by the articular process of this vertebra. In this case, the spinous processes did not share in supporting or transmitting the weight of those of the sacrum, which were, proportionately to the bodies, but slightly developed. He had since found two remarkable modifications of the lower part of the column, resulting from pressure. The first of these presented the most of the changes characteristic of the first referred to above. The spinous processes and laminæ of the sacrum were enormously enlarged, and were very dense. The bodies were small, and cancellous in structure. The body of the lumbar vertebra was displaced backward, producing a condition diametrically opposite to that called spondylolisthesis. The second specimen, on superficial examination, appeared to belong to the second class of pressure-changes; but a vertical median section showed that this belonged to the same class as the specimen first showed. It was taken from a subject who had evidently performed for a long time hard work, in carrying loads on the left shoulder, back and neck. The lumbar spine was very convex, and presented the appearance of spondylolisthesis. On making a vertical median section, the last fibro-cartilage was seen to be increased in depth; superjacent weight, therefore, had been transmitted to the sacrum chiefly through the spinous articular processes, which were very much thickened. This had resulted in the sacrum yielding transversely about its center, the upper part going forward and downward, so much so that, if the plane of the upper surface of the sacrum were continued forward, it would pass one inch below the lower margin of the symphysis. The diameters between the angle of the sacrum and the upper and lower margins of the symphysis were three and a half inches. The spinous processes of the sacrum were very much enlarged, as were the laminæ. The sacrum had, during the later period of life, been acted upon by an upward pressure, probably due to a continuous sedentary position. This had served to increase its anterior concavity still further.

Cerebral Vessels in Congestion.—Dr. Handfield Jones had examined the smaller cerebral vessels and capillaries in miningo cerebritis, and in other conditions in which there was congestion. He found that the capillaries were obstructed by large leucocytes, which clung to the walls of the vessels, probably during the last hours of life. In the arterioles he had seen more and bulkier corpuscles. Elongated corpuscles were not unfrequently met with. They probably originated from muscle-nuclei. The amœboid qualities of the corpuscles were very marked. The walls of the capillaries were very indistinct, and had sometimes broken down. In inflammation, the smaller vessels seemed reduced to mere tubes of corpuscular material, the adventitia not being recognizable. Denudation of the vessels' walls appeared to be the consequence of preceding hyperplasia. He had at first looked upon these conditions as distinctly pathological, but more recently he had met with changes of the same kind in cases where no cerebral congestion had occurred.

Dr. Samuel Wilks asked what were the conditions under which the changes occurred.

Dr. Handfield Jones said that the changes were made in inflammation and congestion, but were not certainly morbid.

Hypospadias.—Dr. Wilcocks showed the pelvis and genito-urinary organs from a case of hypospadias. The child was born at the seventh month; it was registered as a girl. On pulling back a preputial fold, a small glans penis came into view, and there were nodules in the "labia," which were clearly testes. Dr. Wilcocks showed a drawing of a similar case of mistaken sex which had recently been under the care of Mr. Edmund Owen. The testicles were found, at the age of sixteen months, in the apparent labia. Dr. Willcocks also showed the testicle removed by Professor George Buchanan from the labia of a child aged 9, who was supposed to be a girl. A small vaginal passage was present, but no rudiment of a uterus. In his own case, this vaginal passage was represented only by a small depression between the urethra and anus.

Mr. Godlee related the case of a hypospadiac, born before due time, in whom the testicles did not descend until nine months of age. There appeared to be a rudimentary vagina.

Mr. J. H. Morgan said the question of greatest interest was whether the external organs of generation might be developed in the direction of one sex, while the internal organs were developed in the direction of the other.

Dr. S. Wilks observed that, in these cases, the difficulty in determining the sex was often increased, owing to the body assuming the feminine configuration in adult life. Hunter had observed this in the lower animals. Dr. Wilks quoted the case of a supposed woman, who was minutely examined by a well-known obstetric physician, and even shown to the Royal Society. After death, the organs were found to be male.

The President quoted the case of a supposed woman, who, however, was built and walked like a man, and had the voice of a man, and hair on the face. He believed that functional combination of the sexes in one individual had never been observed.

Mr. Morgan said that Otto had described a case in the sheep.

Destructive Disease of Lung from Obstruction of Bronchus.—Doctor Percy Kidd showed specimens from two cases, in which destructive disease of the lung can be traced to obstruction of the main bronchus. The first case was that of a man, aged 38, who was admitted with physical signs of an aneurysm of the aorta, and consolidation and excavation of the left lung; he expectorated mummular purulent sputa. The aneurysm was found, after death, to involve the descending aorta, and to press on the left bronchus and the trachea; it had thin walls, and contained a small amount of thrombus at its posterior aspect. The right lung was healthy; the left lung was as large as the right, and riddled with cavities, situated in gigmented fibroid tissue, and intersected by numerous bands of a similar nature. Some of the cavities had a bronchietatic appearance, and all contained purifoam liquid and some caseous material. There was slight amyloid disease of the liver, spleen, and intestines. In the second case, a woman, aged 25, the obstruction was due to extensive scarring of the trachea, involving the left bronchus, which was so constricted as to admit only an ordinary probe. The left lung was riddled with trabeculated cavities, bronchietatic in some parts, separated by fibroid lung. The cavities contained a reddish-like fluid, and some putty-like material. The right lung contained some tubercular groups. The thyroid, mediastinal, and mesenteric glands, liver, spleen, kidney, gastro-intestinal and urinary mucous membrane were all affected with marked amyloid disease. The symptoms were night-sweats, shortness of breath, and rapid wasting of eight months' duration. The fingers were clubbed; the left side of the chest was almost motionless and dull, with bronchial breathing and pectoriloquy. Signs of excavation became marked; albuminuria and dropsy, followed by profuse diarrhea and hectic fever, determined the patient's death. Examination of the secretions from the pulmonary cavities, in both cases, failed to reveal any tubercle-bacilli. The first case resembled the case recorded by Dr. Irvine; the destructive disease of the lung being probably due to the mechanical results of compression of the bronchus by an aneurysm, pressure on the pulmonary nerves being of secondary importance. The second case differed; the lung disease being the result of an internal stricture of the bronchus, it could not be attributed to pressure on nerves, and strongly supported by Dr. Irvine's views—that the lung-changes had, in the main, a mechanical origin.

Dr. Creighton said that destructive changes in the lung were not unfrequently produced by syphilis; syphilis was certainly present in one of these cases, and he asked whether the influence of this element had been considered.

Dr. Goodhart thought that, in considering the way in which the destructive lung-disease was produced, the ulceration at the seat of pressure ought not to be overlooked; it might set up secondary infection of the peripheral parts of the lung.

Dr. Ewart observed that, where the lung was completely collapsed, no ulceration of the pulmonary tissue occurred at the seat of pressure.

Dr. Semen said that Dr. Irvine had attached much importance to the ulceration at the seat of pressure.

Mr. R. J. Godlee asked Dr. Kidd whether he saw any analogy in this lung to the changes seen after tracheotomy and cut-throat, where the foul secretions set up septic pneumonia.

Dr. Hale White observed that, in ulceration from other causes, no such lung-changes were produced.

The President said that the cavities looked as if they were of long duration; that would appear to render it possible that the destructive disease was an antecedent condition altogether. He further remarked that the possibility of pressure on the blood-vessels could not be excluded.

Dr. Kidd, in reply, said that the aneurysm was of at least eighteen months' and probably of four years' duration; in the second case, the symptoms were chronic. Both patients had syphilis, but all the symptoms could not be attributed to it. He thought the mechanical action was of the chief importance.

Acute Ulceration of Colon.—Dr. W. H. Allchin showed a specimen taken from the body of a woman who died after having been ill for nineteen days, the prominent symptoms being diarrhœa and abdominal pain, followed by bloody stools and exhaustion; the diarrhœa was unchecked by treatment. The temperature ranged from 90° to 102°; the urine presented no abnormal characters; the colon was the only organ found to be diseased after death. The small intestine was quite healthy, the disease being accurately limited to the large intestine, which, throughout its whole length, was occupied by numerous large ulcers. The base of the ulcers was clean, and not thickened; the edges were thickened, and had undermined edges. The ulceration conformed to the acute type. The case corresponded with the description of acute follicular ulceration of the colon. He believed that a chronic form was not uncommon in middle-aged women.

Dr. Wilks referred to the medico-legal aspect of the case, as it had been denied that acute inflammation of the colon, such as might be compared with dysentery, ever occurred in this country. He had met with several cases of acute ulceration of the large intestine, which were clearly not due to the administration of an irritant poison.

Cyst of Small Intestine.—Mr. W. H. Battle showed a cyst which had been removed from the wall of the small intestine. The patient was a married woman, aged 35. Eight years before she came under treatment, she had an attack of jaundice, accompanied by ascites. The jaundice disappeared in two years, but the dropsy lasted for five or six. On the subsidence of the dropsy, she first noticed a swelling in the abdomen on the left side. There was a rounded swelling, situated in the left hypochondrium, immediately below the costal arch, of the size of a large egg, movable, but not moving with respiration; it was very tender and painful. In the hypogastrium was another swelling, hard, also tender and somewhat movable, smooth, and extending from the left side of the middle line into the right iliac fossa. Mr. Sydney Jones performed abdominal section, and removed the cyst, which was sessile, and occupied a considerable section of the abdominal wall, to which it was firmly attached, and from which it was carefully peeled. The lymphatics over the surface of the intestinal folds were in a somewhat dilated and varicose condition. The pelvic tumor proved to be a uterine fibroid. The patient made good recovery. Examination of the cyst showed it to be smooth on the surface, about the size of a small orange, white and glistening. Microscopical examination of the cyst-wall showed a laminated appearance, but no evidence of glandular structure, nor of epithelial lining. They contained fluid, some of which was removed by tapping at the time of operation, was thick, of a yellowish color, looking like yellow paint. Microscopically, it consisted of cholesterine-crystals, fat and molecular matter. Chemical examination showed the presence of a large amount of fat and albumen.

Gastrostomy.—Mr. Bruce Clark showed the organs from two cases in which gastrostomy had been performed. In one case, the disease was situated at the lower end of the œsophagus, while in the second the upper part of the œsophagus was affected. Both patients recovered from the operation. In the first case, where the stricture was pervious, the stomach was not contracted; while, in the other case, where the stricture was not pervious, the stomach was very much contracted. In this case, he had made the opening into the duodenum instead of into the stomach, owing, probably, to the contracted state of the stomach.

Some of the Irregular Manifestations of Malaria.

BY L. EMMETT HOLT, A.M., M.D.,
Physician to the Northwestern Dispensary; Instructor in the New York Polyclinic.

In the study and discussion of a subject like the one chosen for this evening, there are two errors into which we may fall. The first is, to attribute to malarial poisoning all of that vast number of ill-defined ailments which can not properly be classed as belonging to any one of the organs. The second is, never to admit the diagnosis of malaria unless a distinct history of a typical paroxysm is found to be present. This latter position, it seems to me, is just as wide of the truth as the first one stated, although it may not be so commonly taken.

Malaria, in one form or another, is just now the popular disease. It is a convenient term for the layman to apply to his indisposition, and, as a rule, he feels quite gratified to have his physician confirm his diagnosis, which the latter too often does without any well-grounded reasons. In medicine, as in most other things, we find what we look for. The malarial bias is as easy to acquire as it is hard to shake off. For, when one has watched cases, with symptoms pointing to grave disease of the brain, lungs or kidneys; when he has used the ordinary therapeutic measures without the slightest effect, and then seen how all difficulties were cleared up; when malaria was found as an underlying or modifying cause, it is hard for him not to believe that almost any group of symptoms may be produced by malaria.

Still the profession has a right to be skeptical regarding many symptoms put forward as masked intermittents. Something more than mere dictum must be offered. What, then, shall we insist upon as the criteria of malaria?

This is the most difficult point to settle, and the one upon which, it seems to me, the whole discussion hinges. I remember that Dr. Janeway called our attention, several years ago, in Bellevue Hospital, to the fact that cases of typical intermittent fever *originating* in New York City were exceedingly rare. Those seen here would, on close questioning, be found to have contracted the disease in New Jersey, Long Island, or in the South. This is an important point, which should not be lost sight of. Among over three hundred cases of malaria of which I have records, there is scarcely a single exception to this rule. Those who insist on the presence of the regular chill, fever and sweat, will see but little malaria in New York.

In my own cases I have been rarely willing to make a positive diagnosis of malaria unless at least two of the following conditions were present: 1, Periodicity in the symptoms; 2, prompt curability by quinine; 3, enlargement of the spleen. I have placed them in the order of their importance, as I have come to regard them.

There might be also added the presence of fever, as determined by careful thermometric observations made morning and evening. Taken alone, of course, this symptom amounts to little or nothing.

Periodicity of malarial symptoms, as we see them in New York, is by no means always so marked as at once to be apparent. It may require very close observation on the part of the physician to establish this fact.

To the therapeutic argument, from the effect of quinine, I am inclined to give a good deal of weight, particularly in those cases where other measures have signally failed, and where prompt improvement is noticed to follow the use of the drug. Although quinine was much vaunted a few years ago in pneumonia, erysipelas, tuberculosis, septicæmia and other allied febrile diseases, further experience has, I think, shown conclusively that it is of little value in reducing temperatures not malarial. In my own cases with high temperature, in which the exhibition of quinine in full doses was without result, I have found, I think, invariably, that malaria was neither the primary cause, nor a potent factor in producing the fever.

The question of splenic enlargement is a difficult one to settle in many cases undoubtedly malarial. In nearly all the acute, severe cases it is, I think, demonstrable. In a large number of those of a milder type I have been unable to satisfy myself of its presence, especially in first attacks; while most of the cases of chronic malarial cachexia show a marked degree of enlargement.

Besides these fundamental symptoms, if we may so term them, there are others which are highly suggestive, and which may lead us to look for a malarial element in cases where it might otherwise escape us. Among them may be mentioned: 1, Marked drowsiness; 2, headaches, usually supra-orbital; 3, anæmia and cachexia; 4, vertigo; 5, digestive derangements, anorexia, thickly-coated tongue and constipation.

Drowsiness, heaviness and apathy, especially when coming on at some regular time in the day, usually toward evening, are most characteristic symptoms in children. Constipation I have found present much oftener than diarrhœa, although several very striking cases of the latter, in malarial cases, have fallen under my observation.

In general, however, it is rather by the combination of symptoms than by the invariable presence of single ones that a diagnosis is reached.

A peculiar form of incontinence of urine I have seen associated with so many cases of malaria as to convince me that it was not a coincidence. The patients were children, from seven to twelve years of age, who had, as a rule, never before suffered from this affection. The incontinence was only present during the day. It seemed to depend upon extreme vesicle irritability. Micturition was very frequent, sometimes every fifteen minutes, and unless immediate response was made to the call, the clothing was wet. Examination of the urine threw no light upon these cases. The incontinence did not outlast the malarial symptoms.

Periodical attacks of gastralgia may occur with fever and other symptoms of malarial poisoning, or may constitute the principal complaint of the patient. The pain seems to have no relation to the taking of food. It is often associated with epigastric tenderness.

General cutaneous hyperæsthesia has been prominent in several cases. The patients have usually complained of being "sore all over." Handling the muscles often gave so much pain that they cried out. Locomotion seemed to be painful. The hyperæsthesia was more marked in the thighs and legs than elsewhere. It occurred in the mild rather than in the severe cases.

I have written elsewhere regarding pulmonary symptoms occurring with malarial fever, which may very closely simulate pneumonia, both in its symptoms and physical signs. The breathing is often more rapid even than in pneumonia; the temperature is equally high or higher, and the invasion is just as acute. The severity of the symptoms mentioned is strikingly out of proportion to the amount of general disturbance which the patient shows. If the temperature is carefully watched for twenty-four hours a marked remission will always be found to occur, if the case is one of malaria; and with the fall in the temperature the pulmonary symptoms greatly subside, or disappear altogether.

In a former paper I have referred to six cases of spasmodic asthma which were supposed to be due to malarial poisoning. Although constantly on the lookout for further clinical evidence in support of this view, I am compelled to say, in the light of a much wider experience, that it has been wanting. This leads me to believe that I may have been mistaken, and that the connection between the asthmatic attacks and malaria was not so close as I was led to think.

As additional evidence to that which has been lately adduced, of a connection between malaria and diseases of the ear, two cases of severe otalgia occurring with what was in other respects an ordinary malarial attack deserve to be mentioned. Both were in children and seemed to be purely neuralgic.

A malarial manifestation in which I have been particularly interested of late is spasmodic torticollis. In going over my records for two and a half years I have found notes of twenty-one cases of torticollis, excluding those dependent upon bone disease. In seven the symptom was accounted for by cold, scarlet fever, measles or traumatism. In the remaining fourteen evidence of malaria, to my mind satisfactory, existed. In eight distinct periodicity was observed. The symptom would come on every day about the same hour—generally toward noon, and last until the patient went to bed. On rising the following morning, the neck would either be perfectly free, or only a little stiffness was left. In the remaining six the malarial symptoms accompanying the torticollis were quite as marked, but they were not under sufficiently close personal observation to enable me to settle positively the point of periodicity. These cases have been treated in a great variety of ways in order to settle beyond a doubt the fact of their malarial character. Generally I avoided giving quinine for three or four days until I had a chance to observe recurring paroxysms. In some of the least severe I withheld quinine altogether, and found that they gradually recovered spontaneously. The more marked ones showed a strong disposition to recur with the same severity until quinine was given. The universal experience was prompt and permanent relief by quinine, no matter whether the cases were of two days' or ten days' standing. Local applications were tried in most of the cases, but were useless. There was great similarity in the cases, though all degrees of severity were seen. All came on with quite an abrupt invasion; all were walking cases, with a temperature, I think, never higher than 102°. Two or three complained of pain about the neck, but in most of the cases this was only present on an attempt to rotate the head actively or passively.—*Med. Record.*

Abscess of the Liver.

BY J. W. IRWIN, M. D.

Read at a meeting of the Louisville Medico-Chirurgical Society, June 12, '85.

In presenting a report of the few cases of abscess of the liver which came under my observation, in private practice, during a period of twelve years, my chief aim shall be to relate, in a concise form, a history of each case, together with its physical signs, the surgical means, if any, which were employed for its removal, and its termination.

Case I.—Mrs. A. M., aged twenty-seven years, of American birth, applied to me for treatment on the 2d day of June, 1873. She was complaining of a harassing dry cough and pain in the right side. During the last few months previous, she had been having fever and night sweats, and her sleep had been disturbed by unpleasent dreams. The cough was always most severe after going to bed, when she would have paroxysms lasting for an hour or longer. She gave her history as having had several attacks of bilious fever, which always left her with a feeling of soreness in the epigastrium. An examination of the abdomen revealed an enlargement over the region of the liver, which was most marked over the left lobe, extending down toward the umbilicus. There was some tenderness under pressure in the region of the liver, and the outline of the tumor could be detected smooth and regular in form. Abscess of the liver was suspected, and this diagnosis was verified by means of the exploring needle. An operation was proposed for the removal of the pus, but, the patient refusing to submit to it, nature was allowed full sway. The cough increased in frequency and severity, and the fever and night sweats continued until she had become very much emaciated. One morning, during an attack of coughing, the abscess burst into the lung, when upward of a pint of pus, of a reddish-brown color, escaped through the mouth. This discharge was followed by considerable relief of pain, cough and fever, but the improvement was not permanent. Two weeks later another discharge of pus took place, in the same way, which exceeded the former one in quantity. More relief soon followed this discharge, and the enlargement of the liver was now much reduced. From this time on pus continued to be expectorated, at times quite freely, and in two months her health was sufficiently improved to enable her to go on a visit, to relatives, to New Albany, Indiana, where she has ever since resided. When I last heard from her, now nearly one year ago, she was still alive and well.

Case II.—Mrs. G. D., aged forty-seven years, of German nativity, was visited in consultation with her attending physician, on the 13th day of April, 1874. Found two openings over the region of the liver, between the seventh and eighth ribs, just outside of their angles, which were discharging pus. Six months previous she had had a tumor in the region of the liver, which was pronounced by her physician an abscess. Refusing to submit to an operation, the abscess opened spontaneously soon afterward, and was still discharging pus. The openings being only about one inch apart, the space between was divided by the knife, and a drainage-tube was then inserted, which permitted free escape for the pus. Three months later the wound had entirely healed, and the side had regained its normal appearance. I last saw the patient in 1882, and there has been no return of the liver trouble.

Case III.—J. B., aged thirty-eight years, a Frenchman by nativity, came under my observation on the 5th day of September, 1876. He had been having pain in the right side, hectic fever and a dry, hacking cough; and he had been losing flesh steadily for nearly two years previously. The pain at times was so severe that it prevented him from sleeping, and he had to take anodynes for relief. On an examination the abdomen was found to be very much enlarged; the tumefaction was most marked on the right side over the region of the liver. Through the walls of the abdomen could be felt an elastic tumor extending down to the umbilicus. The abdomen was so much swollen that it interfered with his breathing, and it was decided to aspirate immediately. Fifty-six ounces of pus were removed by the aspirator, and, notwithstanding the fact that the largest size of needle was made use of, the removal of the pus was found to be very hard to accomplish, it being of a tenacious consistence, containing particles of broken-down liver tissue. The pus was of a dark drab color, mixed with blood, and it had a very offensive odor. The patient stood the operation better than was at first anticipated, and he expressed himself as being very much relieved thereby. For two or three days the amelioration continued, but the tumor began again to enlarge. On the fifth day from the date of the first operation, the aspirator was reinserted and fully one pint of pus was drawn off. Very little relief followed this operation, and he died from exhaustion two days later. An autopsy was made thirty-six hours after death, when the capsule of Glisson was found to be very much distended and thickened, forming a large sac, which still contained upward of a quart of pus. The liver was reduced in size fully one-half; furrowed on its surface and had several small abscesses in its substance.

CASE IV.—W. D., aged twenty-seven years, by occupation a coal miner, had been confined to his home several weeks with a pain at the epigastrium, which also extended into the right side and right shoulder. He had been having attacks of fever which were followed by profuse sweating. On an examination of the abdomen, the liver was found to be enlarged, and some tenderness under pressure was complained of. The disease was thought to be "abscess of the liver," and hot flaxseed poultices were applied. These applications were kept up for two weeks, when most of the soreness had disappeared. The abscess was now pointing between the seventh and eighth ribs, and here pus was discovered by the exploring needle, but the patient would not allow an operation to be made. The poultices were then continued for a couple of weeks longer, when the swelling had disappeared. Under the use of iron and quinine the fever and sweating ceased, and the patient felt well enough to resume his former occupation. The case was seen for the first time on the 5th day of June, 1877, and for two years afterward there had been no return of the abscess.

CASE V.—W. I., aged thirty-three years, of German birth, had been suffering nearly eight months previous to my visit, which was on the 10th day of July, 1878, with pain and some swelling in the right side. The disease was thought to be pleurisy, and a blister was applied. The relief which followed the application of the blister was only very temporary, and, fearing that the liver might be the seat of an abscess, the exploring needle was employed, and pus was discovered. An incision was then made in the most pendent portion of the tumor, which was just below the cartilaginous margin of the ribs on the outer side of the gall bladder. When the sac containing the pus was reached, its contents were removed by means of a trocar and canula and a drainage-tube was then employed. Upward of one pint of pus came away at the first opening, and afterward the pus continued to flow for three or four months. After the abscess was opened the pain was no longer complained of. The wound gradually healed up, and there has been no return of the liver trouble since. The patient has had good health, and, with the exception of a couple of attacks of bilious fever, he has not complained of any illness. His work is quite laborious, being a blacksmith, which vocation he still continues to follow.

Case VI.—J. R., aged thirty-six years, a native of Germany, a barkeeper by occupation, was seen on consultation on the 25th of July, 1878. He was confined to the bed, had fever, and was complaining of pain at the epigastrium. He was considerably emaciated, having been sick for four or five weeks previously. He gave the history of having been a moderate drinker for several years before, but was not in the habit of getting on sprees. On examining the abdomen, the liver was found to be enlarged, which enlargement extended into the epigastrium. There was much tenderness under pressure in the epigastric region, and a fluctuating tumor could be felt on the inner side of the gall-bladder. The presence of pus was suspected, and the aspirator was the instrument employed for its removal. A teacupful and one-half of bloody serum was now drawn off, with the effect of reducing the size of the tumor, and, on the following day, the aspirator was reinserted and a couple of ounces of pus removed through the same opening. The patient did not experience any relief from this procedure, and he died on the tenth day following the operation, after suffering much pain. An autopsy was made with the following result: The left lobe of the liver was found to be the seat of the abscess; the capsule of Glisson softened, covered with lymph, and easy of removal. One-half pint of pus was found beneath the capsule.

Case VII.—J. D., aged twenty-eight years, of American birth, a street-car driver, had been ailing for some weeks previous to my visit, which was on the 13th day of September, 1879. I found him in bed, complaining of headache and pain in the right side. On an examination I found some swelling and tenderness over the region of the liver, and the intercostal spaces were bulging. The case was diagnosed "abscess of the liver," and poultices were applied. These applications were continued for a couple of weeks, when the soreness had disappeared, and the abscess was pointing between the seventh and eighth ribs. Here a direct incision was made down to the sac of the abscess, and this was tapped with a trocar and canula of large size, and four or five ounces of grayish pus escaped. A drainage-tube was then inserted, and the discharge of pus continued for a couple of months, when it was followed for several days by a small quantity of bloody serum. The wound slowly healed and the patient's health improved sufficiently to enable him to resume his former occupation. For upward of one year afterward there had been no return of the abscess. I then lost sight of the patient and have not heard from him since.

CASE VIII.—S. M., aged eighteen years, of American birth, came to my office on May 5, 1880, complaining of pain in the side and difficulty in breathing. I found his abdomen much swollen and tender under pressure. The abdominal muscles being very thin, a distinct tumor could be felt, filling up the hepatic region and the epigastrium, and extending downwardly to below the umbilicus. The superficial veins of the abdomen were very much enlarged. A puncture was made with the exploring needle in the most pendent portion of the tumor, and pus was discovered. An operation was proposed, but the patient being young, had to consult his parents before permission could be obtained, and this was refused. He then returned to his home, in a neighboring village, and a short time afterward died. I did not learn of an autopsy having been made.

CASE IX.—Mr. J. F., thirty-eight years of age, of German birth, was seen in consultation on the 2d day of July, 1883. For several years previous he had been exposed to sudden changes of atmosphere, having been employed as a laborer in a brewery. Eight months previous to my visit he was taken with pain in the right side, and dysentery. The side became swollen, and poultices were applied, which were continued for five or six weeks. The intercostal spaces were then bulging, and it was thought an abscess had formed. This view was soon confirmed by the abscess bursting spontaneously between the seventh and eighth ribs on the outer side of their angles. Pus had been discharging for five months from three openings, and it had a very offensive odor. Adhesions had formed completely between the covering of the liver and the chest wall. The patient, being very much emaciated, could not leave his bed. He had also constant fever and profuse night-sweats. The abscess was washed out every third day, with a twenty-five per cent.

solution of the tincture of iodine, and for a time there seemed to be some improvement. Finally a slough took place, which involved the adhesions that prevented the pus from escaping into the abdominal cavity, and peritonitis supervened, which resulted in his death on the fourth day after the occurrence of the accident. Permission to make an autopsy could not be obtained.

Case X.—M. P., aged forty-six years, of American birth, by occupation a grocerykeeper, was taken sick on January 4, 1884, at which time he had a well-marked attack of acute inflammation of the liver. Active treatment was instituted without any apparent effect, and the inflammation went on to suppuration. The swelling was most prominent over the region of the stomach, and here the exploring needle revealed pus. Further operative procedure would not be permitted, and hot fomentations were applied. These applications were continued for about four weeks, when the patient died rom exhaustion. An autopsy was not made.

Before closing this report, I wish to express my belief that the aspirator is not the best means to be employed for the evacuation of abscesses of the liver generally. I believe its use should be wholly confined to the evacuation of small abscesses, consisting of a single cyst, where the diagnosis could be clearly made out. Otherwise the aspirator should not be employed for any other than exploring purposes. I am not prepared to receive the recently advanced opinion, that "the local application of a blister will procure adhesive inflammation between the walls of the abdomen and the peritoneum." I would not wait in the faint hope for adhesive inflammation to take place, before resorting to operative measures, lest they should be instituted too late to be attended by good results. As soon as pus can be discovered by the exploring needle, a direct incision should be made down to the sac of the abscess, then its contents should be evacuated by a trocar and canula of large size. Finally a fdrainage-tube should be inserted and allowed to remain in position as long as the suppuration continued. In all cases of hepatic abscess the mortality is very large. We find the cases operated on do very little better than those trusted to the effort of nature, the percentage of deaths in either case being seventy to eighty.

In the Indies, where this disease is thought to occur at times almost endemically, the mortality is said to be as low as fifteen per cent. of those attacked. However, the Indian statistics are of doubtful utility, since every inflammatory condition of the liver is classed as an abscess. The statistics of cases upon which operations have been made are far from complete, and can not be relied upon. It may be that spontaneous cures, if recorded, would outnumber those after operative procedures.

Summary.—Five of the cases recovered and five died. Of the five cases that recovered, in one the abscess burst into the lung; in one the abscess opened spontaneously externally; in two the abscess was opened by incision and a trocar and canula; in one the abscess did not open, it was probably absorbed. Of the cases that died, in two there was not any kind of operation made; in two the aspirator was made use of; in one the abscess opened spontaneously externally. In this case the sac of the abscess was washed out every third day with a twenty-five per cent. solution of tincture iodine. —*Louisville Medical News.*

The Pall Mall Gazette's Exposure.

The recent exposure by the *Pall Mall Gazette* of a form of horrid licentiousness frequent in London has startled the world. That female virtue should be made merchandise, be bought and sold like the commodities of life in the world's great metropolis, does not speak well for the progress of the race or for the power of Christianity. Paganism in its worst estate could hardly be worse. In our own country when some licentious wretch, maddened by more than brutal instinct, rapes maiden or matron, it is not unusual for the swift vengeance of a mob to inflict death, in some cases preceded by cruel tortures, upon the criminal. But in London we have a similar crime annually committed upon hundreds and even thousands of young girls whose poverty and friendlessness have rendered them comparatively helpless, or who are blindly lured to their ruin—if need be, their very cries of remonstrance stifled, and resistance overcome by force—and English law seems utterly powerless to avenge their wrongs, or secure to others adequate protection. Beer and Britainism, according to Sidney Smith, are inseparable ideas. Licentiousness and London will also become as inseparable if the condition of things made known by the *Gazette* continues.

"The gods are forever just," exclaims Carlyle in his life of John Sterling. Would that this gruff immortal were still in the world to pour upon the perpetrators of these black crimes his fierce invective, and rouse the English nation to demand of their rulers suitable protection for the daughters of the people.

The revelations made by the *Gazette* affect medical men. One of the villainous debauchees who was a liberal purchaser of these unfortunate girls, consigning "to fate worse than death" hundreds of them, is said to be a doctor. The certificates of virginity which were necessary to secure the sale of the unhappy victims of cruel lust, were given by physicians after examination. That medical men should descend so low as to be the paid panderers to shameless licentiousness, is surely a matter of reproach to the profession. London physicians of repute owe it to themselves, to the profession at large, to society, and to the world, to discover, to expose, and to banish forever from their association those who have thus contributed to this damnable traffic.

We do not doubt that good will come from the exposure made by the *Pall Mall Gazette.* The electric light is a powerful aid to morality, and so when the light of knowledge shines in upon London's habitation of cruelty, and nefarious practices are thus publicly known, the intended victim will be warned and made wary, the criminal deterred in some degree, and the crime become less frequent.

Moreover, a purer, healthier public sentiment will be created, a sentiment that will serve the enactment and enforcement of just laws for the protection of female virtue, and that will visit with condign punishment, social or legal, if not both, those who sacrifice virgin purity for the momentary gratification of sexual passion.—*Philadelphia Medical News.*

Trypsin as a Solvent of Diphtheritic Pseudo Membrane.

Dr. H. D. Chapin concludes an article published in *Med. Record,* March 7, 1885, as follows: Prof. Kuhne gives the following method of preparing pancreas for a trypsin solution: "Take fresh or one day old pancreas from the ox; hash it fine, and add four to five volumes of absolute alcohol; let stand five to six days, then drain off alcohol, and add fresh absolute alcohol, two volumes; let this stand three days; drain again and extract the substance with ether; the pancreas can then be quickly dried in air. To five grammes of pancreas, so prepared, add 50 c. c. of 0.1 per cent. salicylic acid solution; let digest in a water-bath four hours at temperature 37° to 38° C.; filter, and to filtrate add sodæ bicarb., to make slightly alkaline, say about 0.25 per cent. The fluid is then ready for use. It is best to add one per cent. thymol to the solution to prevent putrefaction. This addition of thymol in no way interferes with the action of the fluid." Dr. Van Syckel has prepared a trypsin solution by adding five grammes of the prepared extractum pancreatis to 50 c. c. of the salicylic acid solution, etc., as above. He states that a trypsin solution, prepared correctly, should dissolve its weight of fresh blood fibrin in ten minutes, and that all preparations requiring a longer time are poor. The trypsin solutions I used were made for me by Mr. Fairchild, and represented by assay the strength of about gr. iv. to ʒj. To avoid decomposition, various antiseptics were added; to some of the solutions one-tenth of one per cent. of salicylic acid with a little thymol, and to others a three per cent. solution of boric acid and borax, combined to form a neutral medium. We are now experimenting on this subject, and hope soon to determine the best antiseptic to use, that will preserve the ferment without inhibiting its action, and possibly be valuable in disinfecting the diphtheritic surface as well. Of course, any antiseptic must be used in extremely small quantities to avoid interfering with the activity of the ferment. I have tried the trypsin solution in a number of cases of diphtheria, in which the membrane was abundant upon the tonsils and fauces, with favorable results. It should be applied at short intervals by the spray or brush; in the few cases in which I have thus tried it, the membrane has disappeared more quickly than is usual in my experience. As the ferment is locally unirritating, it can be very frequently applied as long as the membrane continues to form. A few drops of the solution placed in a dog's eye showed no signs of irritating. Upon living tissues, the power of the ferment does not seem to be very great. All the physical conditions in the fauces, pharynx and larynx are favorable to its action.

The important question, as to whether a trypsin solution can practically be utilized to dissolve false membrane within the larynx and upon the vocal cords, remains to be solved. If the membrane can be disintegrated as quickly as it forms, the necessity of tracheotomy may sometimes be avoided. To this end it is of paramount importance to thoroughly apply the ferment within the larynx. It has always been a matter of uncertainty to me how much of the spray, as usually applied to young children, actually reaches the glottis. In cases in which the steam atomizer is used, it is rarely possible to get the child near enough to inhale the spray, which is usually fine, in very great concentration. When the nozzle of the hand-spray is placed in the mouth, they at once gag, the back of the tongue rises, and prevents the entrance of the medicated spray; for when the tip of the nozzle is touched, the spray stops at once. To avoid this trouble, I have had made by Tiemann an instrument with a rounded nozzle that can be thrust into the mouth of a struggling child without fear of doing any harm, and a projecting depressor that reaches forward very nearly to the tip; this at the same time holds down the back of the tongue and prevents the stopping of the spray from the contact of the soft parts. By means of a double bulb, or possibly at times by compressed air, a continuous downward spray is maintained.

It is thus aimed to fill the pharynx and larynx with a trypsin spray of sufficient tension to penetrate all parts. I have only been able thus far to try the trypsin in one case of diphtheritic croup, and that with negative results, as the baby, nine months old, was moribund when I saw her. If in any instance, after tracheotomy, we are able to keep the air passages below the tube tolerably free from membrane, by this agent, it will be a great gain.

The extract of pancreas, while exerting a digestive effect upon diphtheritic membrane, does not act quite so quickly as trypsin, in the cases in which I have compared the action of the two, upon fibrous membrane. In the case cited at the beginning of this paper, however, the extract certainly had a timely and favorable action. Prof. J. Lewis Smith has used the extract of pancreas upon quite a number of cases of diphtheria, and considers its action promising. With reference to the manner of applying it, I have had Mr. Fairchild make me up quite a number of solutions, and as a tentative formula, it has seemed to me the following is as good as any:

℞. Ext. pancreatis, gr. xv.; sodii bicarb, gr. iij.; glycerine, ʒj.; aq. dest., ʒ vij.

It can be used by spray or brush. Stronger solutions do not appear to act any quicker, while being more viscid. Enough soda is added to make the solution alkaline, and the glycerine to enable it to catch hold of the membrane readily. As stated at the beginning of this paper, before any definite conclusions in therapeutics can be reached, many observations by different observers are necessary. It certainly seems as if efforts to reduce the mortality of diphtheria are continually needed. A disease that kills more than cholera can not have trials made in too many directions to partially control it.

Hæmorrhagic Malarial Fever in Alabama.

Dr. James Cochrane, in an article published in *Jour. Amer. Med. Asso.*, concludes as follows:

Under this head I propose simply to offer a few suggestions as to some of the more obvious indications of treatment, based on the pathological characters of the disease, and upon the experience of my correspondents.

1. There is virtual unanimity of opinion as to the superabundance of bile, the congestion of the liver, the engorgement of the portal circulation, and the constipation; and there is also virtual unanimity of opinion as to the beneficial influence of purgatives, especially of mercurial purgatives. The methods of administration vary. Some give small doses of calomel, or of calomel in some of the usual combinations of it with other drugs, every few hours, until the bowels are freely moved and the portal and hepatic congestions relieved. Others give larger doses at less frequent intervals; and a few advocate the administration of enormous doses, thirty, forty, and even seventy grains at a time.

2. The disease seems to be always attended by very distressing nausea, and by copious, frequent, and protracted bilious vomiting. It is of course impossible to arrest nausea and emesis as long as there is bile in the stomach. My correspondents say very little about the management of these symptoms, except as to what is indirectly accomplished through the influence of purgation. The indication, however, seems to be very clear that the stomach should be emptied of all the bile that finds its way into it through the duodenum, or in any other way. It seems hardly necessary to administer emetic medicines; but copious drafts of hot water or warm tea will probably be found useful.

3. A dry, harsh skin is another common symptom, mentioned again by my correspondents; and in such cases sweating is mentioned as always giving more or less relief. This may be induced by the external application of heat by any of the usual methods; and will be favored by the ingestion of hot drinks as just mentioned in connection with another indication. Very little mention is made of the use of diaphoretic drugs.

4. It does not seem to be settled whether or not it is desirable to address remedies directly to the kidneys. In the meantime all attempts to check the discharge of the red urine by the agency of astringents and styptics have proved certainly unavailing and perhaps mischievous; and the same unfavorable verdict may be confidently pronounced on all attempts to restore, through the stimulus of diuretics, the action of the congested kidneys when suppression supervenes. The chief reliance for the relief of the overburdened kidneys must be sought in the derivative and compensatory action of the bowels, and especially of the skin.

5. One of my medical friends has found much benefit to result from the free use of oranges and lemons, of which he allows the juice to be ingested *ad libitum*. He is confident that these agreeable vegetable acids exert more effectual control over the stomachic troubles than any other remedies he has ever employed. He also believes that they act well on the kidneys and the skin; and perhaps also on the blood.

6. As this disease has been almost universally regarded as of malarial origin, it was very natural that our physicians should have looked to quinine as the very sheet anchor in the treatment of it, and so for a long time the general rule was to give quinine in liberal and frequent doses; and with many physicians this is the rule still. It was, however, very soon observed that quinine exercised far less control over this disease than over our ordinary intermittent and remittent fevers. It was also observed that it often increased the flow of red urine, and even re-established it after it had ceased to show itself. Strangest of all, it was observed that in many cases the chills came on while the patients were thoroughly under the influence of quinine.

The result of this has been that the confidence of the medical profession of the State in the beneficent power of quinine in this fever has been very much weakened, and that many of them have ceased to use it at all, unless, perhaps, as a tonic in convalescence. Efforts have been made to show the inadvisability of the quinine treatment, by appeals to statistical tables comparing deaths and recoveries with and without quinine. I do not regard these tables as at all conclusive, because of the small number of cases placed in comparison, and for other reasons that need not now be mentioned. In the meantime the broad fact still remains, that in the treatment of this most dangerous of malarial maladies, quinine, the great malarial remedy, has lost ground, and is still losing ground, in the confidence of the profession. Those who still believe in the efficacy of quinine in the treatment of this malady ascribe the waning faith of their doubting confreres to improper methods of administration. It should not be given, they say, until the system of the patient has been prepared for its reception—that is to say, until the superabundant bile has been purged away, and the cutaneous functions re-established.

Nervous Symptoms of Enteric Fever.

The following are the conclusions reached in an article by Dr. J. C. Wilson, published in *Med. Times:*

1. The so-called typhoid condition (stupor, somnolence, hebetude, prostration) is dependent upon the alteration of the blood caused by the infecting principle. It may be said that the intensity of these symptoms is proportionate to the virulence of the infection.

2. Delirium (especially when violent) and agitation, in a word the ataxic phenomena, are produced by the same pathogenic principle. But their manner of development and their course are to a great degree influenced by the pyrexia. The fact, however, must not be overlooked that certain forms of delirium occurring in enteric fever, are not dependent upon the elevation of the temperature.

3. Certain forms of delirium, especially delirium ceasing after free epistaxis, and certain muscular disorders, such as convulsions and contractures, must be ascribed to hyperæmia. Disturbances of sensation are likewise in many instances the result of congestion of the nervous centers.

4. Vertigo, delirium, etc., may also be due to anæmia, which plays an important part in the production of enfeeblement of the central nervous system. Collapse is very often due to abundant hemorrhages. Inanition, producing, as it does,

a profound denutrition, is a cause of anæmia, and favors the collapse and marasmus which are so often fatal.

In conclusion, whilst intense pyrexia is the cause of serious symptoms and grave complications, it is possible to assign to it too high a position as a pathogenic factor. The dictum of Griesinger, "The fever in great part controls the situation."—*Das Fieber beherrscht zu grossem Theil die Situation*—has exposed those who have accepted it to grave therapeutic errors. The nervous phenomena of enteric fever are produced by various causes which act sometimes together, sometimes separately. It is not easy to discover the predominant element in a pathogeny always complex, nor is it desirable to carry the analysis to an extreme. From a clinical standpoint, however, the subject is important, for the management of the nervous symptoms will be successful in proportion as their interpretation is exact.

New York Academy of Medicine

A. JACOBI, M.D., PRESIDENT, IN THE CHAIR.

DR. T. HERRING BURCHARD then read a paper entitled "Observations on the Treatment, Medical and Surgical, of Acute Peritonitis."

Peritonitis might well be regarded as the most fatal of the acute inflammatory diseases. After a careful compilation of various hospital statistics, etc., its mortality might be set down, when all varieties of the disease were considered, at about from fifty to sixty per cent., and from twenty to thirty per cent. higher when so-called "idiopathic cases" were excluded.

All treatment to rise above mere empiricism must rest upon a threefold conception—a conception of the cause of the disease, a conception of the natural history of the disease, and finally the natural tendencies of the disease, or a foreknowledge of the mode of recovery or death.

It would suffice to know that peritonitis might originate from *external traumatisms*, from *internal traumatisms*, by extension of inflammation from contiguous parts, from septic causes and certain blood diseases (as rheumatism, Bright's, etc.), and possibly, though rarely, from causes that were purely miasmatic and climatic, constituting the so-called idiopathic cases.

What were the causes of death? According to the text-book, collapse and asthenia. According to clinical and pathological observation, first, *collapse;* second, *asthenia*, which might be more intelligently expressed by (*a*) heart-failure, (*b*) respiratory failure; third, by inflammatory changes in the lungs; fourth, by inflammatory changes in the kidneys; fifth, by hyperpyrexia as a special cause superinducing any or all the above.

In no other disease was an early knowledge of the causation of the attack so essential. It was in the incipiency of the attack, before excessive tympanites had disturbed the normal configurations of the abdomen and fatal asthenia had developed, that the golden opportunity for successful diagnosis existed.

Under a systematically conducted examination, which necessitated the interrogation of each abdominal viscus, and which sought to find a satisfactory explanation for each abnormal sympton, it was surprising how the difficulty would disappear. It was to a want of thoroughness in the examination and a lack of the judicial element in weighing symptoms, rather than to inherent difficulties, that the diagnosis often seemed so obscure.

The diagnosis being made, and a local lesion amenable to surgical interference being demonstrated, surgical relief should be rendered at the earliest moment practicable.

What, under the circumstances, were the indications for treatment? Were the irritation located elsewhere in the body than in this much-dreaded locality, sound surgical judgment would advise the immediate removal of the irritant. Why, then, should the peritoneum, a region which was daily proving its immunity to surgical manipulation by giving to surgery its brightest triumphs, not be subjected to the same wise principles that guided us elsewhere in our operative procedures?

Dr. Burchard then referred to the paper read in this very hall, by J. Marion Sims (*British Medical Journal*, December 27, 1881), who sounded the keynote of the future treatment of such cases when he said, "Given a case of perforation of the intestines, and given an accurate diagnosis, which is by no means difficult, what are we to do in the present state of our knowledge? Why, of course, we should open the abdomen promptly, clean out the peritoneal cavity, search for the perforation, pare its edges and bring them together with sutures, and treat the case as we now treat other cases involving the peritoneum. "Rest assured," he says, "that the day will come—and it is not far off—when an accurate diagnosis in such cases followed by prompt action will save life that must otherwise quickly ebb away."

The point raised by Dr. James R. Wood in the discussion on Dr. Sims' paper, to which reference had already been made, viz.: that "pathological surgery, or operations done for tumors and disease, was very different in its result from traumatic or acute surgery, and that this was specially true regarding manipulation of a large serous membrane that resents all impertinent interference," did not, it seemed to him, afford a sufficiently logical basis for doing or not doing the operation. As a clinical fact, the peritoneum was exceedingly tolerant of interferences, provided the proper precautions were observed.

Dr. Burchard then read the histories of forty cases of laparotomy performed for injuries done to the abdominal viscera, either from external or internal violence, many of which were suffering at the time of the operation from acute peritonitis, including sixteen in which the operation was performed for the relief of acute peritonitis, with purulent collections. The following is an abstract of the above cases: Laparotomies performed for internal traumatism, 21, with 12 deaths and 9 recoveries; laparotomies performed for external traumatism, 3, with 1 death and 2 recoveries; laparotomies performed for peritonitis, 16, with 3 deaths and 13 recoveries.

After which he read the history in full of his own case, which occurred in a man, twenty-six years of age, in whom an omental abscess burst into the peritoneal cavity during an acute peritonitis. Laparotomy was done, and the patient made a good recovery.

If these 40 cases with 24 recoveries teach anything, they teach not merely the feasibility of such operations, but, more than that, they give us legitimate ground for encouragement in fully sixty per cent. of these otherwise hopeless cases.

THE MEDICAL TREATMENT OF PERITONITIS.

Concerning this there were some points of special interest, and first, the opium treatment, which, while it was our sheet anchor in the treatment of peritonitis, there were certain conditions in the course of the disease in which the drug could only be used with the greatest caution. The indiscriminate use of opium, even in peritonitis, was quite capable of doing more harm than good.

The symptoms of peritonitis varied with its extent, severity, and the causes which produced it. When the disease developed gradually, as from a pre-existing visceral inflammation, for some time there might be little or no constitutional disturbance. When it developed suddenly, however, and particularly if from internal traumatism, as hernia, perforation, or other intestinal injury, the condition of shock entered as a very important element in the development of symptoms, and the treatment must be varied accordingly. This initial collapse of peritonitis was a subject upon which too little has been said, and yet its treatment was of most signal importance.

In speaking of treatment, the text-books generally recom mended that "as soon as the unmistakable symptoms o peritonitis were developed, at one dose from two to five grains of opium be given or from one-half to one grain of morphine."

But collapse was a condition of the system in which opium even in moderate doses, was poorly borne. Infinitesima doses of morphine in conjunction with atropia, by mitigating pain and securing nervous tranquillity, undoubtedly exerted a favorable tonic influence upon the heart. Large doses increased the paralysis of the cardiac inhibitory centre, and still further crippled that organ.

Another and very important fact to be noticed in the commencement of peritonitis—and governing greatly the freedom with which opium may be used—was the perplexing discrepancy that ofttimes existed between the severity of the pain and the apparent hard-time wiry pulse on the one hand, and on the other the very great heart-feebleness. Under such circumstances every dose of opium given, unless guarded by atropia or digitalis, jeopardized the heart, and no dose should be administered under such circumstances without previous careful cardiac auscultation.

There is another condition, developing later in the history of the disease, in which the administration of morphia in large doses was equally prejudicial; and upon which condition current literature is likewise, unfortunately, silent—namely, hypostatic pneumonia, which, owing partly to the patient's asthenic condition and partly to pressure on the lungs from excessive tympanites, was so apt to develop at that time. At this stage a slight overdose of morphine might arrest entirely the respiratory act.

Regarding the use of opium, freedom from pain was the ideal condition to be secured, irrespective of the quantity of the drug administered. When this was attained, sleep, from which a patient could be readily aroused, followed as a natural consequence. Opium, or its alkaloid, morphine, should be administered. Personally he preferred the hypodermic administration of morphine, not alone from the simplicity and certainty of its administration, but what was of more consequence, the absolute knowledge it gave of the exact quantity of the drug the patient was receiving.

Objections had been raised against the combination of atropia with morphia. Undoubtedly, atropia did produce a marked change in the patient's appearance, and certain very characteristic changes in the phenomena of the disease, but these changes, he believed, were in every way favorable to the patient. There was no one drug, in the treatment of collapse, whatever be its cause, whether traumatic or from disease, in which more implicit confidence could be placed than in atropia.

EXTERNAL APPLICATIONS.

Much had been said of the efficacy of external applications, used either hot or cold. Poultices were still used by many. Until within the last two years, he employed them exclusively. Upon what therapeutic principle their use was based he didn't know then, and don't know now. Poultices are not curative.

Cold, judiciously employed, lowered temperature, reduced inflammation, relieved tympanites, and secured nervous tranquillity. There was but one way of employing cold, and that was by the *ice coil.* This could be readily extemporized from either lead or rubber tubing.

DIET.

For diet nothing was comparable with peptonized milk, to which additional cream might be added if desired.

TYMPANITES.

For the relief of tympanites much depended upon whether the gas was within the cavity of the peritoneum or in the intestines. If the former, a fine aspirating needle might be introduced and with immediate relief; if the latter, a long tube might be passed up the bowel and an ounce or more of some warm aromatic solution injected. Gas must not be expected to escape through a tube occluded with fæces. Pneumatic aspiration of the intestine he regarded as neither surgical nor safe. Turpentine stupes he resorted to, more out of respect to a tradition than because of any very positive benefit he had ever seen follow their use in general peritonitis. When turpentine was pushed to any considerable extent, he feared damage to the kidneys.

Last, but by no means least, the successful treatment of peritonitis demands a personal devotion and attention involving complete abnegation of self.

The discussion was opened by Dr. A. L. Loomis, who said it hardly seemed proper that a physician should be called upon to discuss a surgical paper, yet his interest in the subject, and the frequency with which he had urged surgeons to undertake to save the life of patients with acute peritonitis, was his excuse for making a few remarks. The first important point before any surgical procedure should be resorted to was to determine exactly, if possible, the cause of the peritonitis. He was one of those who did not believe in idiopathic peritonitis, and he had not seen a case in which he had been unable to find either a local or a constitutional cause.

All the cases could be grouped under three general heads: First, constitutional, in which the peritonitis, either acute or chronic, depended upon blood-poisoning of some kind; second, those in which the inflammation extended to the peritoneum; third, those which depended upon ulceration and the discharge into the peritoneal cavity, of intestinal contents, the contents of abscesses, cysts, etc.

As to the cases in which there was intestinal perforation as a cause, he had yet to see one in which recovery had taken place after intestinal gases had entered the peritoneal cavity. He recognized this as one of the most certainly fatal causes of peritonitis, but it was often difficult to determine exactly the point where such an opening into the intestine had been made, or what portion of the intestine was involved. He did not believe that by localizing the usual symptoms of peritonitis the portion of intestine involved could always be determined, because the normal position of the abdominal contents was very likely to be changed by a variety of causes, such as displacements following old peritonitis, etc.

If, however, the exact portion of the intestine involved could be determined—that is, the exact starting-point of the peritonitis—he could readily approve of all that had been stated concerning the adoption of surgical procedure in acute peritonitis. He believed that he had seen more than one case; indeed, he had recently seen a case occurring in a member of our own profession, in whom he believed that, if an operation had been performed when he first saw the patient, there would have been a good probability of his being alive to-day, for the symptoms were not active when he first saw him. In all these cases, when ulceration had taken place and symptoms were slowly developing, there were almost always signs of localized peritonitis, and these were fixed pain, increased by firm pressure, arrest of abdominal respiration, and a feebleness of heart-power which did not correspond to the amount of peritonitis. With such symptoms, and the condition manifesting itself locally in the right iliac fossa, it seemed to him that the surgeon would be justified in cutting down and preventing the fatal peritonitis which would develop when a perforation occurred; or, if not to do that, to stand by the patient and be ready, as soon as the first symptoms of perforation did occur, to proceed with the surgical operation and open the peritoneal cavity. In two or three instances he had stood by surgeons and urged them to open the peritoneal cavity and endeavor to find out the cause of peritonitis. In one hospital case, in which he specially urged the propriety of this procedure, the autopsy proved that there was a narrow fibrous band constricting a portion of the small intestine, which might have been easily divided and the obstruction relieved. It seemed to him that the experience of surgeons proved that it was not so dangerous to interfere with the peritoneum as had heretofore been supposed; but when there was general peritonitis with shock and collapse, the pulse 160, respirations altogether thoracic, then if an operation were performed, the chances of success were very small. It was in the early stage that an operation was indicated to obtain a knowledge of the cause at the earliest possible moment, and so thoroughly convinced was he upon this point, that, if he felt sure of the existence of this condition in his own person, he would find some surgeon to open his abdominal cavity immediately. It was true that some patients recovered without the formation of abscess, and some recovered after the formation of abscess; but they were so few in comparison with the number in which death took place that he thought the points brought forward by the author of the paper were well taken.

With regard to the opium treatment of peritonitis, those who knew of his practice knew well that he believed in it; but he believed in it with restrictions, and all the restrictions set forth in the paper were important and should be borne in mind. Indiscriminate use of opium at first was dangerous, and it should always be guarded by the use of atropine. When the first stage of the peritonitis had passed, and the symptoms had become established and were pursuing their course steadily, then the free use of opium was indicated, and he was not so particular with reference to the combination with atropine.

Microscopy.

San Francisco Microscopical Society.

THE announcement that a paper would be read opposing the now widely accepted "Germ Theory of Disease," attracted the largest attendance of the year to the meeting of the San Francisco Microscopical Society, held at its rooms, No. 120 Sutter Street, last Wednesday evening.

After the usual routine business had been dispatched, Dr. J. M. Selfridge read the paper of the evening, entitled: "Bacteria and Their Relation to Health and Disease." He first briefly referred to the great difficulties attending the study of these minute organisms, which, after having been bandied about between the animal and vegetable kingdoms, are now definitely classed as plants of the group known as Fungi. They are not only the smallest of all living organisms (many species being less than one seventy-thousandth of an inch in diameter), but they are also the most widely diffused, being met with practically everywhere. The methods of their growth and reproduction were referred to, and the almost incredible rapidity of the latter was illustrated by numerous statistics. He then proceeded to review the grounds upon which the advocates of the germ theory rest their case. Extensive quotations from the writings of Koch, Pasteur, Cohn, Sternberg and others were cited, and their experimental work alluded to. These eminent authorities, and many others in sympathy with them, claim that it has been demonstrated beyond all reasonable question, that certain diseases, such as anthrax, fowl-cholera, tubercular phthisis, etc., are produced by the parasitic micro-organisms, bacteria. Dr. Selfridge next stated his own view of the case, which is, that bacteria are the *result*, but not the *cause*, of the decomposition of organic substances. He fortified his position by quoting extensively from the writings of scientists holding similar views, and by pointing out what he considered the fallacies in reasoning of his opponents, and the erroneous deductions drawn by them from their experiments. He argued that in order to prove that one thing is the cause of another, it must be shown that the cause was in active presence before the thing produced was manifest. In the case of bacteria, therefore, he held that it must be shown that they are in the blood of a given case before the disease manifests itself. For, if they be not present until *after* the disease has brought the system under its influence, the inference is that the bacteria in that case, instead of being the *cause*, are the *result* of the disease.

He summarized his conclusions as follows:

Bacteria are widely-diffused unicellular vegetable organisms, visible only with the microscope.

They are the result of the decomposition of organic substances; they are ferments.

Their appearance is sometimes changed by the pabulum upon which they feed.

Septic and other infectious poisons can be modified by various re-agents (without at all changing the forms of the contained bacteria), so that when introduced into the system by vaccination they will protect the individual against the more potent virus.

The theory that bacteria cause infectious disease is false, because their presence is not necessary to produce the diseases ascribed to them. They are only carriers of poisons ("ptomaines"), which are generated during the decomposition of organic matter.

Bacteria can not exist in healthy organisms.

The theory that the use of germicides in infective and zymotic diseases is scientific treatment, has been exploded, for it has been shown that the patient's life would be jeopardized thereby.

The value of their presence as a means of diagnosis is admitted.

At the conclusion of the reading of Dr. Selfridge's paper, the thanks of the Society were unanimously tendered him.

An exceedingly animated discussion then arose, in which the advocates of the germ theory, led by Dr. Hallard, stoutly maintained the correctness of their views, and it is probable that other papers upon the same important subject will shortly be forthcoming.

Prof. Hanks presented two slides of gold from quartz collected by him at the mines near Dahlonega, Ga. The peculiarity of the gold consisted in its crystalline condition, its purity and absolute freedom from coating. Slides of this material will be furnished to members interested in the subject.

Mr. Payzant exhibited specimens of *Eudorina elegans* (living), a beautiful little motile plant, belonging to the group *Volvocineæ*. It occurred in such prodigious numbers as to impart a distinct green color to the water in which it was found.

After the various objects of interest shown under the microscope had been duly examined, the meeting adjourned.

A. H. Breckenfeld, Rec. Sec'y.

Gleanings.

Trommer's Extract of Malt.—We recently had evidence of the remarkable efficacy of this preparation, in witnessing the results following upon taking it by a young woman affected with scrofula. The glands of the neck were enlarged, and on one side of the neck there was a discharging ulcer. In ten days after the young woman began to take the malt the swelling of the glands was greatly reduced and the ugly looking ulcer was almost healed.

Many physicians have had no success in prescribing malt, for the reason that the preparations they have used contained no diastase. With this constituent destroyed in the process of manufacture, the preparation is worthless. If physicians will address the Trommer Company, there will be sent them descriptions of the method for testing for diastase, so that it can be ascertained at once whether a particular preparation is worthless or not. The method of testing for the presence of diastase is very simple, and any one can do it.—*Exchange.*

THE ACTUAL DEATH-RATE OF WAR.—Some tables have recently been published, based upon a report of the Adjutant General of the United States Army, showing the actual per cent. of deaths from sickness and by battle during the War of the Rebellion. It is a truism that in war disease kills more than the bullet. The detailed facts showing this, however, in the case of our own war are of especial interest.

The States and Territories contributed to the army of the Union 3,500,000 men. Of these, during the four years of war, there were killed in action 67,030, or 2.88 per cent.; there died of wounds, 43,000, or 1.85 per cent., making a total of deaths from violence 110,030, or 4.73 per cent. On the other hand, there died from disease 224,586, or 9.68 per cent., disease being thus twice as fatal as the bullet.

The total mortality among Union soldiers during the war would be 334,616, or 14.41 per hundred of those engaged. Thus over fourteen out of every hundred soldiers died in the four years' war.

This is an enormous death rate, but the figures are often wrongly used, and they do not accurately indicate the mortality rightly attributable to the war. The ordinary death-rate among male adults is about nine per thousand annually in this country. During the four years of the war there would have occurred under any circumstances, among the three and a half million of soldiers, about 126,000 deaths, leaving, therefore, only somewhat over 200,000 deaths attributable to the war. To put it in a general way, instead of four men who would have died in the natural course of events, fifteen men out of every hundred died in the course of the war.

The death-rate from bullets is only a little greater than the death-rate in civil life, but the soldier has added the enormous risks from disease.—*Med. Record.*

SIR SPENCER WELLS AND OVARIOTOMY.—Exception has been taken by a Western journal to what was said in a recent *Record* editorial concerning the relation of Sir Spencer Wells to the revival of ovariotomy. The claim is made that to Washington L. Atlee, of Pennsylvania, is due the position which the English surgeon has "arrogated."

The history of nearly all surgical operations emphasizes the fact that they are rarely the product of the genius of any one man. Each age, dating back to the birth of medical literature, with its consequent dissemination of ideas, has suggested some valuable theory which later times have put in practice. The process has been one of evolution. In many directions the highest type has not yet been reached. Perhaps no operation more clearly illustrates this idea than that of ovariotomy. Nearly two hundred years ago it began to be seriously talked of, but after a century and a half it still had many more enemies than friends. During this period isolated contributions were made concerning our knowledge in "condition, indication and operative technique." Men were at work in England, and later in America, each generation profiting by the experience of its predecessor, and advances were made, step by step, toward the goal of demonstration. In the category of contributors toward this end, both Atlee and Wells occupy enviable positions. The impulse given to the development of the operation by the Atlee brothers is, very justly, we think, ascribed by Dr. Emmett (last edition) to Dr. Charles Clay, of Manchester. The statement of Carl Braun, that "Atlee performed the operation two hundred and forty-six times from 1843 to 1871, and by this has contributed the most to its enfranchisement," is simply a begging of the question. To "enfranchise" anything is, according to Webster, to liberate it from slavery. When Wells began to operate in 1858, ovariotomy was most emphatically under the yoke. That he profited by the publication of Atlee's cases in 1855 is doubtless true. By 1872 he had completed his first five hundred cases, or more than twice as many as Atlee, in three years' less time. If figures are to be the criterion, the case needs no further argument. The tone of medical literature in 1858 was decidedly against the operation, but Wells by his splendid increasing successes speedily brought the cause to a triumphant issue.—*Med. Record.*

ANTIPYRIN.—This drug has been used in pneumonia in the New York Hospital, given in powder, gr. 30; at the end of an hour, gr. 15, and if required, gr. 15 at the end of the third hour. The temperature fell one to three degrees, and so remained from one to eight hours. It occasionally produced sweating and slight cardiac depression (not so much so as large doses of quinine in this disease), but there was no gastric disturbance.

Dr. L. Weber, of New York, has treated fifteen cases of pneumonia, bronchitis, and scarlet fever, with such success in reducing unnaturally high temperature as to cause him to speak of the drug in terms of the highest commendation. He gave it in solution with syrup and oil of peppermint, or in water, in doses of gr. 15 to 20 for adults and 10 for children, repeated every hour or two, according to the fall of temperature. In some cases it was administered in these doses continuously every three hours.

Dr. W. H. Draper has employed the drug in twenty cases of typhoid fever in the New York Hospital, with a mortality of 25 per cent. It does not modify the course of the disease, but is, in his opinion, superior to all other methods in reducing high temperature. He found no cardiac depression following its use, but the tongue became moist and clean, intelligence became clearer, and restlessness was allayed. An erythematous rash appeared for a few days in six of the cases, but did not oppose the continued administration of the drug. Dr. Kinnicutt affirms that it diminishes the fever of phthisis without increasing the sweating, and used it with equal success in reducing the fever of inflammatory rheumatism and facial erysipelas; while Dr. M. McLean found it superior to all antipyretics in doses of gr. 60 daily in one case of puerperal septicæmia. In a case of puerperal fever, in the Leeds Female Hospital, under the care of Dr. Barrs, an initial dose of gr. 35, followed in three hours by gr. 17, produced a subnormal fall of temperature, rapid pulse and collapse, which continued for thirty-six hours and terminated in death.

THALLINE.—A new antipyretic of the chinoline group, discovered by Dr. v. Jarksch and Skraup. Its chemical name is tetrahydroparachinazinol. It forms salts, as an acetate, sulphate and chloride, all easily soluble in water, of an acid reaction, and of an intensely bitter, aromatic taste. They produce a green color in combination with chloride of iron. Thalline is a powerful antifermentative. The sulphate was used in the dose of gr. 3, which rapidly reduces the temperature in various diseases attended with fever. Doses of gr. 4 to 12½ have also been given. Four grains reduce the temperature for at most only four, and usually only for two or three, hours. A continued lowering of temperature may be produced by doses repeated every two or four hours, or when the temperature again commences to rise. The pulse-rate is usually lowered, but never in proportion to the fall of temperature. No unpleasant cardiac symptoms have been noticed. Perspiration usually attends the fall of temperature. Thalline has been tried successfully for simply reducing the temperature in typhoid, rheumatism, erysipelas, measles, puerperal fever, pneumonia and tuberculosis.

HICCOUGH CURED BY THE EXTRACTION OF NINE NEEDLES FROM THE EPIGASTRIUM.—Liégeois has described in the *Revue Méd. de l' Est* (January 4, 1885) a case of intractable hiccough in a nervous woman, aged twenty-one. The paroxysm lasted twenty-four days, and was so violent that the whole body was shaken, and the noise could be heard at a distance of forty yards. Bromide of potassium and ether had been given without success. Chloral and hyoscyamine produced a temporary improvement, but the paroxysms reappeared after a time. Opium and atropia were then administered, and the hiccough ceased for about a month, when a new attack occurred. Five months later, a small abscess formed in the epigastric region, and a needle, which projected through the skin, was extracted by the patient's sister. An incision was then made by Dr. Liégeois, who found eight other needles in the subcutaneous tissue. This operation was followed by a complete cure, but the author is unable to state whether the needles had been swallowed or introduced under the skin by the patient herself.

MULTIPLE MYOCLONUS.—By this term Freidreich designates an affection which he observed in a lady fifty years of age. It consisted in clonic convulsive attacks occurring at irregular intervals in certain symmetrical muscular groups. The flexors and extensors of the forearms and legs were chiefly affected. The convulsions persisted during sleep, and were exaggerated by irritation of the skin. They were absent during voluntary movements. After existing for five years, the affection disappeared spontaneously in the space of ten days. Freidreich believed that it was to be referred to a functional disturbance of the anterior ganglion cells of the cord.—*Revista Clinica e Terapeutica*, May, 1885.

BISULPHIDE OF CARBON.—The presence of micro-organisms, cadaveric alkaloids, and various putrescent substances in the intestinal canal, must certainly modify unfavorably the course of many diseases. It has been the object of medicine from earliest history to destroy this infective matter, but so far without any positive hopes of success. Among the many substances proposed for this purpose, Dr. Dujardin Beaumetz, of Paris, speaks in the highest praise of the carbon bisulphide, thus prepared: ℞ carbonei bisulphide ʒ 6, water one pint, spirits of peppermint gtt. 30 M.; shake in a flask and let the mixture settle. From five to ten tablespoonfuls (probably equal to gtt. 1½ to 3 of the drug) are administered in a glass of wine and water, or of milk, during the day. The water in the flask is replaced as fast as it disappears by use. Thus administered, it is unobjectionable to taste, perfectly safe, effectual in disinfecting the stools, destroying the germs they may contain, and relieving the diarrhœas of infectious diseases, as of typhoid.—*Therapeutic Gazette.*

A CORRESPONDENT of the *N. Y. Med. Jour.*, Jan. 31st, mentions that the U. S. Consul at Pernambuco, has forwarded to the State Department a sample of alveloz, a South American plant, with the statement that several cases of alleged cancer had been cured by its application. Unlike cundurango—an alleged specific for cancer and syphilis when taken internally—alveloz is a local remedy. Its effect resembles that of jequrity, profuse suppuration following its application to a granulating surface. On receipt of the drug it was handed to the Marine Hospital Bureau for trial, and was applied by Dr. Smith Townsend in a case of lupus of the nose, near the angle of the eye. The case was of nearly forty years' standing, and had resisted all previous treatment. The ulcer was cured within a few days, and the patient was exhibited by Dr. Hamilton at a recent meeting of the Medical Society. The Doctor stated that he had under observation an undoubted case of epithelioma of the face, and promised to report the result at a future meeting.

OATMEAL IN SCARLATINA.—In consideration of the fact that contagion in scarlet fever is due to dissemination of the almost imperceptible scales of desquamation, Mr. George Smith, of Somerset, England, proposes to bathe the body daily with a tepid solution, prepared by mixing one ounce of oatmeal to a pint of boiling water, made fresh daily, with the object of sticking the scales together with gluten, and thus to allow their removal in mass. Furthermore, the gluten protects the fresh skin from the air, and thus lessens the risk of dropsy.—*British Med. Journal.*

HOT AIR IN FOUL WOUNDS.—Rapid healing of obstinate varicose, syphilitic and other ulcers, has been reported in the London *Lancet* as following a two hours' immersion of the affected limb, twice daily, in a wooden box with a zinc bottom, the air of which is heated as much as the patient can bear, by spirit-lamps beneath the zinc. In specific cases calomel, and in others one ounce of terebene, is sprinkled upon the floor of the box.

Burns and Scalds.—Richardson, in the April London *Lancet*, recommends the following solution for burns and scalds: ℞ spermaceti, camphor, aa ʒ i, rhigolene ℥ ii; solve. To be applied to the affected part by means of brush, and cover with prepared cotton. The rhigolene evaporates, leaving a thin film over the burnt surface, whereby the air is excluded, and the patient experiences almost immediate relief.

Acne is often reflex from urethra irritation. Dr. S. Sherwell obtained marvelous improvement in the faces of two patients, after long treatment had failed, by passing cold sounds every third day. The urethra was found sensitive, especially at about the junction of the membranous portion with the prostatic.—*Jour. C. and V. Dis.*

Book Notices

A Text-Book of Medical Physics. For the Use of Students and Practitioners of Medicine. By John C. Draper, M.D., L.L.D., Professor of Chemistry and Physics in the Medical Department of the University of New York, etc. With 377 Illustrations. 8vo. Pp. 733. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $4.00.

The author states, in the preface of this work, the object of it, as follows: "The fact that a knowledge of physics is indispensable to a thorough understanding of medicine has not yet been as fully realized in this country as in Europe, where the admirable works of Desplats and Gariel, of Robertson, and of numerous German writers, constitute a branch of educational literature to which we can show no parallel. A full appreciation of this, the author trusts, will be sufficient justification for placing in book form the substance of his lectures on this department of science, delivered during many years at the University of the City of New York. Broadly speaking, this work aims to impart a knowledge of the relations existing between physics and medicine in their latest state of development, and to embody in the pursuit of this object, whatever experience the author has gained during a long period of teaching this special branch of applied science."

While the work seems to be devoted to physics in the same manner as works upon natural philosophy, yet throughout it there are kept in view the needs of the medical man. The principles pertaining to physics are set forth, and the relation existing between them and medicine explained.

A scientific physician must of necessity be acquainted with all the phenomena pertaining to what is known as natural philosophy or physics. The muscles of the body are but levers of different kinds; and to be able to compute their strength, a physician must know how to calculate the power of a lever of the same kind. In the circulation of the blood, in digestion, absorption, etc, there are constantly brought to our attention the laws of physics, and unless a physician understands these, he can have no intelligent conception of physiological principles.

In the chapters devoted to Optics, there will be found a very interesting and lucid description of the microscope, simple and compound. The phenomena pertaining to vision are explained in this department.

This is the only work with which we are acquainted in which physics is treated with reference to medicine. Preceptors, who are anxious that their pupils should have a scientific knowledge of medicine, should make this work a text-book and require a thorough study of it.

A TREATISE ON PRACTICAL CHEMISTRY AND QUALITATIVE INORGANIC ANALYSIS, Adapted for Use in the Laboratories of Colleges and Schools. By Frank Clowes, D. Sc., LOND., Fellow of the Chemical Societies of London and Berlin; Professor of Chemistry at the University College, Nottingham, etc. With Illustrations. From the Fourth English Edition. 12mo. Pp. 376. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $2.50.

The author states that in preparing this work it has been his effort to render it as complete and intelligible as possible, with due consideration to the conciseness necessary in a laboratory guide.

Indeed, we have never seen a work upon chemistry more practical in its character. While the principles are unfolded, in one sense, gradually, by being unfolded naturally, yet no prolixity is to be observed, for the demonstrations are brief and to the point, and are marked by the avoidance of unnecessary language.

The work is divided into seven sections, which follow one another in natural order. In the first there are contained simple directions for preparing for use the apparatus that is essential for the laboratory. For the benefit of our readers we will copy the list of articles mentioned in this section, the preparation of which is described: Bunsen burner, spirit lamp, cutting glass tube, bending glass tube, blowpipe, making ignition tubes, mounting platinum wires, making glass stirring rods, boring corks, fitting the wash bottle, cleaning apparatus, heating glass and porcelain.

In the second section the preparation of certain gases is described, and experiments illustrative of their properties are detailed. By carefully working through this section the students will acquire skill in manipulation, and will gain some knowledge of the fitting and use of apparatus.

But it is not necessary to describe the subjects to which each one of the sections is devoted. We will only state that the reactions which are employed as tests and methods of separation in qualitative analysis are contained in the fourth section; and having worked through them, the student proceeds to use them in a suitably systematized and tabulated form in the fifth section for the detection of the constituents of simple salts.

We can recommend the work as a practical treatise, adapted for the use of students of chemistry in colleges and academies.

CHOLERA: ITS ORIGIN, HISTORY, CAUSATION, SYMPTOMS, LESIONS, PREVENTION AND TREATMENT. By Alfred Stille, M. D., L. L. D., Professor Emeritus of the Theory and Practice of Medicine in the University of Pennsylvania. 8vo. Pp. 164. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $1.25.

The distinguished author states that the characteristic symptoms of Asiatic cholera are rice-water evacuations by vomiting and purging, rapid emaciation of the whole body, a cadaverous hollowness of the cheeks and eyes, a livid color of the face, hands and feet, a feeble, thready, and at last absent pulse, an icy coldness of the extremities, face, and even the breath, a loss of elasticity of the skin, a thin and feeble voice, and intense thirst. But every one of those symptoms, he says, may occur in cholera morbus, produced by a direct irritation of the stomach and bowels. "It is rather their nature, we repeat, than their phenomena, that distinguishes these two affections from each other." He says, that in attempting to separate Asiatic cholera from other forms of cholera, we must endeavor to dismiss from the mind the erroneous notion that the term cholera denotes a definite disease identical in its cause, phenomena, and results. "It is no more a disease than dropsy or fever is a disease. It is a complex group of symptoms which have in common the fact that they proceed directly from gastro-intestinal irritation, whose degree of severity—*i. e.*, the presence or absence of certain grave symptoms—and, above all, its issue, depend chiefly upon the nature and intensity of the cause of the attack, and also, necessarily, upon the degree of resistance opposed to it by the subjects of the disease."

Dr. Stille is known throughout this country as a very eminent, learned physician. He is author of the National Dispensatory and of a large work upon Materia Medica and Therapeutics, besides several other works which hold a high position in the profession.

The dire scourge of cholera is now prevailing to a terrible degree in Spain, and, by another year, it may prevail in this country. Under the circumstances, it is the duty of physicians to bestir themselves in gathering knowledge about this frightful disease, so that if it should find its way to this country they may be as fully prepared as possible to combat it. Certainly there is no one more competent than Dr. Stille to give intelligent information in regard to it, and to point out the best methods of preventing it and of treating it.

POISONS: THEIR EFFECTS AND DETECTION. A Manual for the Use of Analytical Chemists and Experts. With an Introductory Essay on the Growth of Modern Toxicology. By Alexander Wynter Blyth, M. R. C. S., F. C. S., etc.; Public Analyst for the County of Devon. With Tables and Illustrations. Volume I., 8vo. Pp. 333. New York: Wm. Wood & Co.; Cincinnati: Garfield.

This work forms the June number of Wood's Library of Standard Medical Authors.

We learn from the preface that the work, in its present form, constitutes an entirely rewritten and greatly enlarged edition of the author's "*Practical Chemistry*."

The work is not, as some might suppose from the title, merely a volume containing lists of poisons of various kinds with their antidotes. It is really only upon the admission that all chemical agents, drugs, mineral and vegetable products are poisons, that the work can be regarded as a treatise upon poisons. We find described in it in an interesting manner, camphor, opium, ergot, cantharides, along with most of the articles of the materia medica. Part V. of the work is devoted to the consideration of alkaloids and poisonous vegetables, principles separated for the most part by alcoholic solvents.

Physicians, druggists, and all interested in the study of chemistry and materia medica, will find the work a very valuable one, containing as it does much valuable knowledge not contained in other works.

A Text-Book of Physiology. By M. Foster, M. A., M. D., F. R. S., Prælector in Physiology and Fellow of Trinity College, Cambridge. Third American Edition from the Fourth and Revised English Edition. With Extensive Notes and Additions. By Edward T. Reichert, M. D., Demonstrator of Experimental Physiology in the University of Pennsylvania. With 271 Illustrations. 12mo. Pp. 911. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $3.75.

Dr. Foster's work upon physiology is so well known as a text-book in this country, that it needs but little to be said in regard to it. There is scarcely a medical college in the United States it is not in the hands of more or less of the students. The author, more than any other writer with whose works we are acquainted, seems to understand what portions of the science are essential for students to know, and what may be passed over by them as not important. The volume, therefore, is not encumbered with opinions that are not generally accepted and with controverted views. From the beginning to the end, physiology is taught in a systematic manner. In the first chapter the blood is taken up and described and its functions explained. Then follows an account of the contractile tissues, and of the phenomena pertaining to the muscles and nerves. In succeeding chapters the student has unfolded such information in regard to the various organs of the bodies, their functions etc., as will be of practical importance. As he is introduced from subject to subject, he knows that whatever is brought to his attention is of practical importance; that everything that is presented for his study is essential.

To this third American edition numerous additions, corrections, and alterations have been made, so that in its present form the usefulness of the book will be found to be much increased.

SECOND REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF TENNESSEE, OCTOBER, 1880—DECEMBER, 1884. Published by Authority. 8vo. Pp. 600. Bound in Cloth. Published at Nashville by the State Printer.

The volume is very creditable to the Board of Health of Tennessee. It contains a large amount of very valuable matter, and deserves to be read and studied by the Boards of Health of other States. "The Report of the Secretary," Dr. J. Berrien Lindsley, of Nashville, is quite a lengthy paper, occupying precisely one-third of the volume, *viz.:* 200 pages. It is quite interesting, however, and will repay its reading. Another interesting and valuable paper is entitled "School Hygiene in Tennessee," by Daniel F. Wright, of Clarksville, Tenn. Dr. J. D. Plunket, of Nashville, contributes some three or four papers of value. One of them is upon "Ozone and Its Relations to Health."

The members of the Board are all physicians but two. They are Drs. J. D. Plunket, Pres.; Jas. M. Safford, Vice-Pres.; J. Berrien Lindsley, Sec.; G. B. Thornton; P. D. Sims; Daniel F. Wright; Hons. E. W. Cole, D. P. Hadden.

THE TECHNOLOGY OF BACTERIA INVESTIGATION. Explicit Directions for the Study of Bacteria; their Culture, Staining, Mounting, etc., according to the Methods employed by the most Eminent Investigators. By Charles S. Dolley, M. D. 12mo. Pp. 263. Boston: S. E. Cassino & Co. Price, $2.00.

The above work has been received too late for us to give it attention in the present issue of the NEWS. We will give it attention in a future number. We understand that it is on sale at R. Clarke & Co.'s book store of this city.

Editorial.

TIGHT LACING.—Who has ever heard of tight lacing *as a sanitary measure?* From the time we were first able to conceive a notion of anything to the present time, we have had it impressed upon our mind that tight lacing had the same claim to be a health-imparting agent, as the taking of arsenic, in repeated doses, in quantity just short of producing an immediately fatal result. Or that it was about as healthy as getting intoxicated two or three times a week, and seeking a soft bed for the night, each time, in a mud gutter, undisturbed by the police. There have been doubts expressed whether Guiteau, who assassinated President Garfield, was insane or not; but if we had inquired, at any time in the past, if an advocate of tight lacing, as a sanitary measure, should be regarded insane, we feel confident that we would have received an affirmative reply from every quarter. If doubts of any kind were manifested, it would have been as regards whether the advocate was a fool instead of being insane.

But to our astonishment we have found an advocate *of tight lacing as a health-imparting measure* in a Tennessee doctor by the name of Dr. W. K. BOWLING, of Nashville. Now, we have always regarded Dr. B. as a distinguished gentleman of the profession. He was at one time either President or Vice-President, we forget which, of the American Medical Association. He was also formerly a very able editor of a medical journal published at Nashville.

But we will proceed to quote without further delay from a paper written by him, printed in the Report of the Tennessee State Board of Health, which we have noticed on another page. Says Dr. B.: "In my young days the doctors all knew that tight lacing would undoubtedly kill all the women, so that the millennium, when at last it should get here, would find no one within the bounds of civilization either to interview, introduce, or even to welcome it. But I know that they did not all die, for the girls I left behind me when I went to seek my fortune, many of them, are here yet, and as sound as a Spanish-milled dollar, and not a few, while nearer eighty than seventy, are able to-day to thread a waltz with a grace simply amazing. The corset contributed to secure venosity of the blood, and, consequently, exemption from consumption. Nor did they have the advantages of gynecology or abdominal surgery, and, it is melancholy to think, will at last die without ever having had the slightest suspicion of a womb."

We have never had the pleasure of meeting Dr. Bowling, although we have known of him for many years as a medical teacher and writer, but we strongly suspect that *he is nearer eighty than seventy*, from the manner of his writing. He has the characteristic of the old man in his admiration of the past. We think he has lived his best days, and is bordering upon senile dementia. Could it be otherwise, when he would have his readers believe that the Creator did not know how to arrange the great organs of the body, and, consequently, had placed them so loosely and so far apart, that when jammed and crowded together by the young miss by means of bedcords, and held thus by hooks and eyes, in her efforts to secure a pretty waist, she actually kept away consumption, prevented womb diseases, and such like ills, and has prolonged her life and activity until now nearly eighty years old. Forsooth the corset produced venosity of the blood. Great is venosity! But how has Dr. B. warded off consumption from himself, until he has got so old that his brains have become so dried that they rattle in his skull? He certainly did not lace and bring about *venosity*.

That our readers may better understand the relation between "venosity" and tight lacing, and how that the latter producing the former—according to Dr. B.'s theory, becomes a sanitary measure—we will explain that Rokitansky, as Dr. B. states, has found that whatever obstructs the free circulation of the blood and secures the predominance of its venosity—in other words, interferes with its getting rid of the waste material contained in it—"contributes to keep fluid in its plasma that, which escaping and being precipitated and congealed, is *tubercle*."

With the utmost hesitation, and with the greatest modesty, we will suggest the probability that that which the venosity of the blood keeps fluid in its plasma, and which escaping, becoming precipitated and congealed [Does Dr. B. actually mean frozen?] is tubercle, might, if the action of the lungs were not interfered with by obstructions, be burned up by oxygen taken into the blood; and thus becoming consumed, there would be nothing to form tubercle in the blood's escaping and *congealing*.

CHOLERA.—This disease has been prevailing to a fearful extent in Spain the present summer. Some towns have been almost entirely deprived of their inhabitants. Indeed, we have seen it stated that if the epidemic should continue to increase in force as it has been doing, and the summer should be protracted, there would be reason for serious apprehensions that the kingdom would become depopulated.

At the time of our writing it is announced that cholera has broken out on the French frontier.

A recent cablegram from Madrid says that one-fourth of the inhabitants of Montenguado, in Sorca, died of cholera during the past ten days. The survivors fled, with the exception of one gendarme, who remained to bury the bodies of the victims.

The credits voted for the work of combating cholera throughout Spain are exhausted, and the Government will at once convoke a State council and demand further cholera credits. Scattering reports gathered for a particular day show that during that day there were 216 new cases of the disease and seventy-two deaths from the epidemic in the city of Saragossa, and 731 new cases and 273 deaths in the Province of Saragossa, outside the city; in the city of Grenada sixty-two new cases and twenty-seven deaths ; in the Province of Grenada ninety new cases and forty-seven deaths ; in the city of Salamanca nine new cases and fourteen deaths ; in Cindad Real one death ; in the Province of Toledo 303 new cases and 119 deaths ; in the Province of Alicante 219 new cases and 105 deaths ; in the Province of Sorria thirteen new cases and twelve deaths ; in the Province of Jaen ninety-five new cases and fifty-one deaths. In the city of Madrid the number of cases is increasing.

A cablegram states that the provincial Italian Liberal Associations are organizing volunteer corps to go to Spain and assist the people in the cholera-stricken regions. The movement is spreading and becoming important, and donations are flowing in from all parts of Spain.

Persons frequently inquire of us if we think it probable that cholera will become epidemic in this country this summer. Our reply always is that we do not believe that it will. It is too late in the season to expect such an occurrence. The disease always proceeds in the line of travel and traffic, and there is no direct communication between this country and Spain. The intercourse between the United States and Europe is, for the most part, through England ; and, consequently, before cholera can reach here, it must first have appeared in England. But, to all appearance, it is further from that country this summer than it was last; and, it occurs to us, that, as strenuous efforts will be employed to keep it from there, it is not improbable that the disease may exhaust itself in its present locality, in the southern portion of Europe, and not reach the northern part. If such a result should occur, our land would escape altogether.

DEATH OF GENERAL GRANT.—General Grant, the distinguished American general, has departed this life. He died a few minutes after 8 o'clock A. M., on Thursday morning, July 23. He had been a great sufferer for several months, but bore his sufferings with the heroism characteristic of a great soldier. As there was no possible chance of his recovery, and as he had completed his "wife's book," as he called the memoirs of himself which he had written, which secured his wife's support after his departure, all must feel that his release from his sufferings by death was a blessing to him. No American was more endeared to the hearts of his countrymen than he.

Dr. Schrady, the editor of the *Medical Record*, of New York, was one of the physicians in attendance upon General Grant. In the issue of the *Record* of July 25 is the following editorial, entitled, "AT LAST:"

"Since our last bulletin was written the final change has come to General Grant. He passed peacefully away at 8 o'clock Thursday morning. On the morning of the day previous, Dr. Douglass summoned Drs. Sands and Shrady to meet him in consultation at Mt. McGregor, as General Grant was sinking and death seemed imminent. On their arrival the patient was found in a very prostrated condition, with feeble and frequent pulse, rapid respiration and inability to swallow. He was suffering no pain, but by his listless manner was apparently conscious that death was approaching. It was decided to sustain his vital powers to the utmost, and make his approaching end as comfortable as possible. The disposition to cough had ceased, and the respiration, although much accelerated, was not mechanically impeded by accumulated mucous secretions. At the time of the consultation he was in his easy chair, occupied so constantly by him day and night for the past five months.

Toward evening, by his own request, he was transferred to his bed, where he rested quietly until his death. As was anticipated by the medical gentlemen in attendance, he continued to sink despite the stimulants locally applied and hypodermically administered. His fear of a painful and agonizing death was, happily for him and his family, not realized. He simply passed away by a gradual and easy cessation of the heart's action. Thus he was spared much of the suffering which would have been inevitable had his general strength allowed the throat disease to progress in its usual way. For so much, at least, there is reason for thankfulness. At a future time a scientific review of the case will be presented to our readers, giving such data as may be necessary to explain the diagnosis arrived at and the method of treatment pursued.

MOLECULES: THEIR ESTIMATED ACTUAL SIZES AND THAT OF THE INTERSTICES.—Dr. John C. Draper, in his recent work upon physics for physicians, says: "All matter is composed of molecules made up of atoms. These molecules do not touch each other, but are separated by spaces, called intermolecular interstices. The molecules forming a substance are never at rest, but are oscillating or moving in various ways, with inconceivable rapidity. These motions are increased by the action of heat, and the size of the interstices is consequently increased.

"Sir Wm. Thompson estimates that in ordinary solids and liquids the average distance between contiguous molecules is less than the millionth of a millimetre. In an article by Mr. G. J. Stoney on the internal motions of gases compared with motions of waves of light, he estimates that there are not fewer than a unit—eighteen (unit) 18, or 1,000,000,000,000,000,000 molecules in each cubic millimetre of a gas at ordinary temperatures and pressures. Considering that a cubic millimetre is about one-twentieth of an inch square on each face, we gain a faint conception of the marvelous minuteness of molecules."

The capacity of a microscope furnished with the finest and most delicate lens for resolution that has ever been manufactured, aided by accessory apparatus, has never been able to do more than to exhibit the divisions of a linear inch divided into 112,000 spaces. A square inch thus ruled or divided would contain 12,544,000,000 spaces, which the very finest lens might bring into view, but, according to the computation of Mr. G. J. Stoner, many molecules could be placed upon each one of them. Under the circumstances, therefore, it is not probable that a microscopic objective will ever be constructed that will be able to exhibit a molecule.

COLLECTIONS.—There has been established in the city of New York an agency, with a capital of $20,000, to assist in the collection of what are termed "bad debts." To all delinquent debtors, whose names are sent them, they send a circular announcing to them that they have been reported delinquent, and that unless the charge is disproven by a certain time, their names will be recorded in a book as individuals who do not pay their debts, a copy of which book will be sent to every subscriber of the agency throughout the United States.

A canvasser of the agency recently visited Cincinnati, and we have understood that he procured several hundred subscribers in a remarkably short time, among the business men of the city, and that the prospects were he would soon obtain several thousand. With a like success elsewhere, and it is probable that, in some places, the agent's success will be even greater, the organization will get two or three hundreds of thousands of subscribers throughout the United States.

The laws in most of the States are too loose, as regards debtors, for the interests of business. While a poor man, who has become unfortunately overwhelmed in debt, which he could not avoid, should not be oppressed, yet rascality should not be encouraged by laws which do not permit of scarcely any pressure being brought to bear upon those who have contracted debts with evidently the purpose of never paying them.

We have the names of parties indebted to us upon our books, whom we have reason to believe are abundantly able to pay us, but will not. We would under no circumstances embarrass a poor worthy brother physician, but we often feel we should do something to reach those who are dishonestly withholding from us what belongs to us.

Those who know that they owe us and can pay, but will not, can blame no one but themselves, if, at some time, they should find themselves announced throughout the length and breadth of the country as persons who will not pay their honest debts. Those who are owing us, and, unfortunately, really are not able to pay, need have no apprehensions that their names will get into the book referred to.

We would advise some of our delinquent friends to remit soon, or write to us.

THE

CINCINNATI MEDICAL NEWS.

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Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illoway, Cincinnati, Ohio.

THE CHLORIDE OF METHYL AGAINST THE ELEMENT OF PAIN IN DIVERSE AFFECTIONS. (*Medical Society of the Hospital.*)

Dr. Tenneson gave a résumé of 37 observations relative to the treatment of Dr. Debove against the element of pain in various affections. The observations were as follows:

Sciatic neuralgia, 10 cases.

Muscular rheumatism, 11 cases.

Acute or subacute articular rheumatism, localized, 15 cases.

Chronic articular rheumatism, 2 cases.

Articular contusion, 1 case.

Osteo-periostic pains of tubercular patients, 1 case.

Painful point (point-decoté) of pulmonary tuberculosis, 3 cases.

Painful point of purulent pleurisy, 1 case.

Painful point of lobar pneumonia, 3 cases.

Total, 37 cases.

Of the 10 cases of sciatica, in 7 the cure of the pain was immediate and complete. The malady was from eight days' to three months' standing. In one of these cases there was a relapse at Vincennes; another application of spray relieved the pain as promptly as the first time.

In the 8th case, who had been unable to work since two years and a half, who had undergone diverse methods of treatment, and expended over two hundred francs in different liniments and in unctions, the cure of the pain was immediate and complete in the whole length of the limb, with the exception of the heel, where the thickness of the epidermis necessitated several applications of the spray.

In two cases, imperfect results; several applications of the spray were necessary in each case, and were each followed by marked relief.

In the 11 cases, the muscular rheumatism occupied different regions of the body, and some were exceedingly painful. Nine times the cure was immediate and complete. In two cases it required two applications of the spray.

In 5 cases of localized articular rheumatism, acute and subacute, the cure of the pain was immediate and complete, although the movements were limited by the synovial effusions and the periarticular inflammatory œdema. In a woman whose both hands were greatly deformed by nodular rheumatism, who had suffered since 8 years, and who in the last three months had suffered most severe pains, the relief of suffering was instantaneous. The woman, although an invalid, does not suffer any at present.

A man, still young, suffered from chronic rheumatism of the left knee, and has been unable to work for the last year and a half; the pain has become so acute that even the pressure of the knee on the mattress is insupportable; the articulation is deformed. After one application of the spray, the relief and cure is immediate and complete; the patient can walk and without suffering, and since more than three weeks there has been no relapse.

A man who had fallen from a height, had his knee, and more particularly his right shoulder, badly bruised. One application of the spray and the cure was immediate and complete. He could walk at once, and execute with his arm all movements of circumduction, even the most extended.

In a tubercular patient of M. Tenneson's, sharp pains, most likely of an osteo-periostic nature, were seated in the sacrum and rendered dorsal decubetus impossible. After one application of the spray the pains disappeared immediately and completely; they did not return up to the time of the patient's death, which occurred several weeks thereafter.

M. Tenneson has finally attacked 7 cases of painful points (*points decoté*) with the chloride of methyle, 3 in pulmonary tuberculosis, 1 in purulent pleurisy, 3 in acute, frank, lobar pneumonia. In all cases the cure and relief of these painful points was immediate and complete. Twice the painful point returned after several days, but was as easily relieved. To produce a refrigeration of 23 degrees on the chest of a pneumonic patient may seem audacious; nevertheless, the 3 cases recovered in the usual time without any untoward incident and without treatment.

M. Tenneson said a few words about accidents imputable to the medication so brilliantly inaugurated by M. Debove.

At the beginning of his attempts he produced vesication and superficial escharification of the dermis; to avoid this, you must not prolong the action of the spray over five or six seconds; care must also be taken not to direct the first jet perpendicular to the skin. This first perpendicular jet produces a depression in the blanched and congealed skin; it is here where a phlyctenula or eschar most commonly develops.

In some patients M. Tenneson has seen a marked hyperæsthesia of the skin persist for several days.

In all cases the erythema lasts several weeks; it is necessary to be on your guard for this fact for certain regions in certain subjects.

A certain degree of pigmentation of the skin may also follow the action of the methyl.—*Practicien—Union Medic., Canada.*

WARM INJECTIONS OF TANNIC ACID IN CHOLERA.

This method has been devised by Prof. Dr. Arnoldo Cantini, of Naples. The object is to change into an acid one the alkaline reaction of the contents of the intestines; according to him the acidity prevents the proliferation of the comma-bacillus. The author experimented with muriatic and with tannic acids. He has had good results with tannin in cases of intestinal catarrh, acute or chronic, in cases of ulceration and infectious dysentery. He administers, therefore, his remedy in cases of premonitory diarrhœa and of confirmed cholera. He has had about 100 successful cases during the epidemic of cholera at Naples. According to the author, the employment of this method at the outset of the choleriforme diarrhœa at periods of epidemics would in the majority of instances be arrested, and a grave seizure thus prevented. This is his formula:

℞ Warm water, . . .	2,000 grms.
Tannic acid, . . .	5 to 10 grms.
Gum arabic, . . .	50 grms.
Laudanum, . . .	30 to 40 drops.

This injection is given by means of a powerful irrigator, placed at a height of 3 to 4 metres. In place of the hot water, an infusion of chamomile may be used. One injection at a temperature of 100½ F. arrests the diarrhœa. If choleraic stools be already there, they will be arrested ordinarily in about 8 to 12 hours; 4 or 5 injections produce even in very serious cases a very marked amelioration.

The urinary excretion returns, the blood is less thick, the febrile stage develops without typhoid symptoms, there is no algidity. The author thinks that the astringent qualities of the injected fluid combat efficaciously the vasomotor intestinal paralysis. The discharges take an acid reaction. This is a fact of great importance. The remedy acts in consequence of its effect on the bacillus. It is easily demonstrated by means of cultures under the influence of tannin; the microbes are not killed, but their proliferation is arrested and they lose their movements in from 24 to 36 hours.—*Paris Medical Union Med. Canad.*

TREATMENT OF SYCOSIS.

Hebra's ointment modified by Wilkinson:

℞ Sulphur Sublimat.	
Huile de Cade, . . .	āā ʒij.
Sapon Mollis.	
Axurgia, ...	āā ℥i.
Creta præpar, . . .	ʒijss.

M. ft. Ung.

The hair is first shaved off from the affected spot and around it. After this the crusts are carefully removed by means of some simple ointment. After 24 hours, the part is soaped and shaved (with a razor), and then the ointment above described applied. A piece of flannel and a bandage complete the dressing, which is changed daily, taking care to remove every time all of the ointment previously applied, to pull out the growing hair and to express the pustules. This is continued as long as pustules are formed.—*Union Medic. Canad.*

Michigan State Board of Health.

Reported for the CINCINNATI MEDICAL NEWS.

AT the quarterly meeting of the State Board of Health of Michigan, held on July 14, 1885, at its office in Lansing, the following members were present: Drs. Avery, Lyster, Hazlewood, Vaughan, Tyler and Baker.

The Board spent much time in examining plans, as required by law, of a proposed new double cottage at the Reform School at Lansing, a building designed to accommodate 100 pupils. The plans were submitted by the architect, Mr. Wm. Appleyard, of Lansing. The Board approved the plans for ventilating and warming the second and third floors. With reference to the first floor the Board recommended, in order to avoid the settling of dust in the registers, that iron hoods be placed over the fresh-air inlets which enter the school-rooms through the floor, and that two additional foul-air outlets, each of a size equal to that of the present outlet, be provided for the two school-rooms—one in the west wall of the west room, and the other in the east wall of the east room, and that these shafts be heated by steam-pipes. Each of these two school-rooms is 30x40 feet, 13 feet high, designed to accommodate fifty pupils. Fresh air is brought into each room by two shafts having an area of 512 square inches. The foul-air shaft for each room is only one-half the size of the inlet pipes; the area being 256 square inches. The recommendation by the Board of Health is that the outlets equal the inlets in area. The method of heating, and of taking fresh air into the building was approved, and also the making of the basement floor of cement troweled smooth.

The Secretary presented a printed statement in regard to the charges made by a minority of the legislative committee on investigation; and asked that a committee be appointed to fully investigate the conduct of the office, and the several laws governing the action of this Board. Drs. Hazlewood, Vaughan and Tyler were made such a committee.

The Secretary read a résumé of the work of other State Boards of Health, and of City Boards of Health; also a report in regard to recent legislation in Michigan in regard to subjects relating to public health. The act passed by the Legislature appropriating $10,000 as an epidemic contingent fund was read by the Secretary, and the Board appointed

Drs. Baker and Lyster a committee to frame rules under that law, and submit them to the members, so that they can be in readiness in case of threatened occurrence of cholera, smallpox, etc. The Board authorized the Secretary, should cholera appear in Michigan, immediately to proceed to the place, or send a competent person to confer with and aid the local Board in restricting the spread of the disease; and it was informally agreed that if cholera appeared in the United States, the President of the Board should at once call a meeting. The revision of the document on restriction of cholera issued by the Board in 1884, and the printing of 20,0000 copies for distribution, were ordered.

The Board directed that the names and addresses of health officers in Michigan be printed in pamphlet form.

The subject of typhoid fever was discussed, and the Secretary was instructed to issue a circular designed to collect information from health officers in localities where typhoid fever occurs; and a committee was appointed to prepare and have printed a document giving methods of preventing and restricting typhoid fever, the document to be distributed in localities where it occurs.

The Board considered the subject of the carrying of infected articles and bodies dead from contagious diseases, and circulars relating to that subject were ordered printed and sent to health officers and to railroad companies.

The proceedings of the Ypsilanti Sanitary Convention were ordered printed in pamphlet form. Invitations from three places in Michigan to hold sanitary conventions were considered.

◆

HAZELINE IN MENORRHAGIA.—In the *Practitioner*, Mr. Cherte describes a valuable remedy for menorrhagia, which is a very frequent ailment in women of Cape Colony. Two drachms of hazeline given twice or thrice daily will act so quickly that it will not be necessary to anticipate the flow, but when menstruation, after it has lasted the ordinary time, is not closing naturally, hazeline given as above will effectually restrain it. After hemorrhage has ceased, there will be no advantage in continuing the drug. Another good result from hazeline is relief from pain in dysmenorrhea in a very quick and marked manner.—*Med. and Surg. Reporter.*

Selections.

The Insanity of Masturbation.

BY C. B. BURR, M. D., PONTIAC, MICH.

A careful study of the symptomatology of mental disease develops the fact that cases of insanity having for their origin a like cause possess distinctive characteristics in common. This becomes the more clearly apparent in proportion as our investigation is more painstaking, and the scrutiny of symptoms more minute. The exciting causes of disease, the surroundings which favor its development, the age at which it makes its appearance, the general condition and circumstances of the patient, are believed not only to determine in a general way the form of disease, but also what its particular manifestations are to be, the character of delusions, and most unquestionably the curability or hopelessness of the malady.

Thus we have the insanity of pubescence, the insanity of adolescence, the insanity of the climacteric period, insanity from constitutional disease, and various other forms, each one presenting definite traits and diagnostic features. This association of cases in accordance with their natural history constitutes the clinical grouping of mental disease, and through it the alienist is furnished a useful and important classification.

Of the different types of insanity, none presents more uniform and distinctive symptoms than the one under consideration. The association of the habit of masturbation with insanity is shown by many striking signs, which, if noticed at all, are frequently ascribed by the friends of patients to causes other than the true one.

Thus a mother observes that her son is growing quieter, more reserved, and low spirited, and that his health seems failing. He is indisposed to go out, and remains much by himself; is disinclined to see people, takes little interest in ordinary matters, and may be found deeply absorbed in reading, or lost in thought. Frequently it is the Bible which engrosses his attention, or a religious experience is expressed, and it is thought that a spiritual awakening is taking place. As he grows pale, nervous and languid, his malady is thought to be due to overstudy, and his condition enlists the sympathy and warmest solicitude of others. As this deep reserve, however, is in many instances but an exaggeration of natural characteristics, the apprehension of friends as to any mental failure in the patient are not excited. It is some sudden, rash, impulsive act, which leads them to suspect that something is wrong with his head, and even then they are loth to admit the existence of any serious mental disorder.

It is strange how often it is that the very flower of the family is stricken in this manner. "He was always a thoughtful, studious, amiable boy," his friends say; "was not rough like his companions, took very little interest in their sports, and was always devoted to his books." W. C., a boy of twenty-two, who was arrested for an attempt to shoot his father, but released from custody on the ground of insanity, and placed in the asylum, was thus described by his mother: "He was brought up in Sabbath-school and day-school more or less until nineteen years of age; was always very fond of reading, and but for the unkindness of his father at the age of fourteen or fifteen would have learned the printers' trade or telegraphing, and to-day have ranked among men as he wanted to, but no encouragement was given him in that direction, and here is the climax. He has seemed very reflective of late, and I have thought religion had something to do with his thoughts." She adds, also, that she hopes he will be led to salvation. Notwithstanding the high tribute from his mother, this patient's characteristics were found to be of the most unpleasant kind. He was irritable, vain, self-conceited, aggressive, and very belligerent. His suspicion was so great that at first he would not reply to any question, and resented attempts at familiarity. Two days after his admission he made assaults upon some feeble patients, and required to be removed from a quiet to a disturbed hall. He would walk about the hall with his hands raised, and making a strange noise, as if engaged in some religious exercise. He had hallucinations of hearing, was unappreciative of his condition, and was often rambling and incoherent in his conversation. He was obstinate and willful, and sought opportunities to annoy others. He addressed his fellow patients in a harsh, disagreeable tone, and elbowed the feebler ones about. At night he would disturb the hall by jumping in and out of bed, and whistling at the window.

On one occasion while out walking, he clambered into a passing wagon, grabbed the lines, whipped up the horses, and drove some distance before the owner of the team could regain control of them. On another occasion he required removal from one hall to another, for committing an act of great indecency in a room. Full three months after admission, after having been composed and self-controlled for quite a long period, he made a brutal and violent assault upon an attendant while his back was turned. After being under treatment six months, this patient was removed at the request of his mother, who always felt that his detention in an asylum was a great hardship and injustice.

N. E., who was brought to the asylum after having procured a knife for the purpose of killing his mother, whom he thought was a devil, was always spoken of as a pattern of propriety, both by her and by his sisters. He was said to be genial, amiable, industrious, and successful in his undertakings. This boy had periods of great irritability, was suspicious, vain, very self-conceited, and inclined to hold himself aloof from others. He entertained religious delusions, and believed that the knife he had sharpened to kill his mother with was predestined for that purpose.

Another patient who had made repeated assaults upon his father and mother, and shown great irritability if opposed, was, previous to his attack, "always retiring in tastes and unlike other boys."

A male, aged 14, who inherited a strong predisposition to mental disease, and was admitted to the asylum suffering from acute mania, was spoken of as a bright, studious, good boy, of kind disposition and pleasant manners, and free from bad habits. This patient, during convalescence, ascribed his entire trouble to vicious habits.

It is a most striking fact that those patients, as a rule, who suffer from mental disease in consequence of this vicious indulgence, possess an inherited tendency to nervous disorders. It would seem that the habit of masturbation operated toward the overthrow of the intellect chiefly in those cases where the nervous constitution is in some way defective, or abnormally susceptible to this and other exciting causes of insanity. As illustrative of this point, an analysis of cases may be of interest. Of the thirty-five patients admitted to the Eastern Michigan Asylum, since the first day of October, 1880, in whom masturbation was the undoubted cause of insanity, twenty-seven are found to inherit a predisposition to nervous or mental disease; in three cases such tendency can not be positively stated, though the presumption is that it exists; five only are exempt from any hereditary taint as far as known.

Melancholia and dementia are the most frequent types of disease from this cause which are seen in asylums. Symptoms are continually changing, however, and transitions from one state to another constantly occur. Thus in many cases, brief periods of mild excitement alternate with those of comparative composure, the length of the interval of quiet being dependent, to a great extent, upon the habits of the patient.

The tendency of all mental disease from this cause is toward irritable dementia, and perfect recovery is exceptional, this depending so largely as it does upon the ability of the patient to restrain morbid tendencies and correct vicious habits. Self-control is in many cases so nearly destroyed by the degrading vice that such coöperation is impracticable.

The excitement observed in connection with this form of insanity is of a purposeless character; is characterized by mischievous acts, erotic impulses, wanton deeds of violence, and destructive propensities. These patients mark the walls, destroy their clothing, are untidy in habits, lawless and excessively difficult to look after. In some instances mania assumes a chronic form, and periods of immunity from excitement are brief and imperfect.

The opposite condition, that of melancholia, is characterized by hallucinations, emotional disturbance, the existence of religious delusions and a disposition to pray and confess sin. It is difficult to say just what the relation is between the abuse of the sexual organs and the development of the religious (?) nature, but this connection has been observed by all who are familiar with mental disease. Patients of this class read the Scriptures diligently, talk on spiritual subjects, are given to praying and exhorting, and have much to say on the subject of morality. They deeply deplore their past sins, and allude to errors of youth, but point to the spotless purity of their present lives, and are strong in professions of rectitude. It has been held that these religious delusions originate in the fear of punishment for violation of Nature's laws (Skae mentions the prevalence of the belief that the unpardonable sin has been committed.) For relief from this burden of guilt, consolation is sought in Scripture reading and religious exercises, and the morbid fervor thus engendered eventually leads the patient to the opposite extreme. He believes himself highly moral, and superior to his associates and surroundings. Maudsley says: "Very remarkable is it what a strain of exalted sentiment and lofty idealism is professed in some of these cases; the world is too coarsely selfish and rudely practical for their fine sensibilities and nice aspirations, and notwithstanding that they are sunk in a degrading self-indulgence, and perhaps emasculated by it, they will pour out loftily-pitched moral sentiments, and take it hotly to task in high conceited fashion for its low aims and gross ways."

Emotional states prevail in this class of cases, and attacks resembling hysteria in the female are not uncommon. The patient takes to bed, or falls in a lifeless manner to the floor; he has a feeble pulse, relaxed skin, and dilated pupils. There is either a feigning of unconsciousness, or complete absence of self-control, weeping, shouting, and active lamentation. This condition is ascribed to nervous exhaustion from overstimulation of the sexual organs. It may be followed by a paroxysm of maniacal excitement.

The vanity and egotism of these patients is phenomenal. This is a noteworthy sign of mental failure, and increases with impairment of intellect. Many imagine themselves possessed of great gifts, and dwell with pride on their varied accomplishments. Some delight in a display of oratorical powers, others write poetry or compose music. There is a strong tendency to speak of the opposite sex, and the average lunatic of this class imagines himself possessed of boundless powers of fascination. These characteristics were exemplified to a marvelous degree in the following case:

A male aged twenty-six was admitted to the asylum about one year ago. His father says that he exhausted himself by study at the age of eighteen, and that his mind "went to pieces" then. He did not suffer from brain fever, but was confined to his bed and seemed out of his head. When he got up he was left irritable and peculiar, unable to devote himself to any regular occupation or study, and without much purpose. At the end of a year he quarreled with a sister, and, procuring money, went to Kansas without the knowledge of his family. There he gained a bare subsistence, and at the end of eighteen months came home, ragged and wretched. His mind upon his return seemed much more active; he applied himself diligently to the study of law, and at the age of twenty-one was admitted to the bar. For some time he was associated in business with an older lawyer, and did pretty well in the way of making collections and practicing in the bankruptcy courts. In a year and a half he became impressed with an undue sense of his own importance, and established himself independently. In the course of a year his library was sold under a chattel mortgage to satisfy his rent. With the loss of his library he gave up, and for three years previous to his admission, did nothing for his own support. In Detroit he connected himself with one of the churches, and was quite a devoted attendant, but notwithstanding this his moral nature was very defective. His bearing while in the society of young ladies was objectionable, and on one occasion he narrowly escaped a cowhiding from an irate father, whose daughter he had insulted. There was, no doubt, progressive mental failure during these three years, but a relative, upon whom he depended for support, did not recognize the fact, and ascribed his growing irritability, indolence, and unpleasant characteristics to viciousness and sheer laziness. Finally this relative concluded he could care for him no longer. From Detroit he went to a neighboring city where his parents resided. There he made himself very obnoxious to young ladies by forcing his society upon them. He had a practice of staring at them in church, or at public entertainments, which was offensive in the extreme. He was addicted to poetry writing, and inflicted his productions upon whoever would accept. He had a scheme for "connecting water ways," and for "lake improvement," and made himself a great nuisance by his importunities to persons to purchase stock. Finally it became rumored that he was looking for the "girl who had jilted him," with a revolver, and being considered dangerous to be at large, he was placed in the asylum. When admitted he was suffering from a nervous disorder of the heart, and was reduced physically. He complained of pain in the back, suffered from constipation, believed that the bones of his spinal column were decaying, and thought that with every act of defecation portions of the spinal marrow escaped. He had many other delusions, among which was one that an explosive bullet had been administered to him in his food. He was listless, performed no active labor, and was indifferent to exercise. His vanity was excessive, his conversation was almost entirely about himself, and very self-laudatory; his poetry was reeled off to his auditors without mercy, and he delighted in displaying what he chose to believe was a highly cultivated voice. He devoted much time to personal adornment, and would spend hours prinking and smirking before a mirror. In public gatherings he would face full about and stare at the ladies. During the first few months he seemed to improve, but this change was not a permanent one, and in six months material impairment of mind had taken place. He grew more irritable, wore a surly look, and complained of a feeling of great confusion. To his attendant he confessed without shame that his habits were improper at night, and ocular evidence corroborated his statement. It was also reported at this time that he was seen by a fellow patient exposing his person at the window. One evening he was cautioned by the physician in charge against such practices, whereupon he grew highly indignant. An hour afterward he approached an attendant, who was standing in a group with others, and dealt him a murderous blow on the head with a champer. The assault was made without provocation. He had previously been on the best of terms with this attendant, and no words whatever had been exchanged between them that evening; neither had the attendant reported anything to his discredit, and this the patient well knew.

The sense of shame gradually becomes obscured and eventually is lost. Disgusting acts are committed, indecent exposures of person and improper advances are made, and open indulgence in the vicious habit is not uncommon. Women frequently entertain delusions appertaining to the union of the sexes. Many believe themselves to be married, others engaged. Others, again, allege that men have been improperly intimate with them. They all possess very susceptible affections, and in many instances a disappointment in love has been the assigned cause of insanity. No less than four female patients of this class, at present under treatment in the asylum, have delusions of this character.

Two cases have been received showing well-marked suicidal tendencies. Such, however, are comparatively rare. One case was that of a male, aged nineteen, who had been a close student and aspired to be a school-teacher. He had been a victim of this habit for a number of years, and had been the prey of quacks and impostors, who had excited his extreme apprehension, and kept constantly before him the bugbear of impotence. One of these quacks had advised a complete renovation of the system by a restricted diet. He adopted the starvation plan, and became so much reduced physically that at the time of admission he weighed but seventy-five pounds. He had been much disposed to wander about alone, and just previous to admission had attempted self-mutilation by cutting his tongue. He had religious delusions, and was disinclined to eat. With physical improvement his mind grew better, and at the end of six months he was discharged "recovered."

The other case was that of a female, aged twenty-five, who inherited a strong predisposition to mental disease. She had been failing in mind for upward of a year, her malady being ascribed by her friends to disappointed affections. She had imagined herself drugged and ruined, and claimed that she had been offered some indignity by a young man. She had twice attempted suicide, once by throwing herself into the river, and again by cutting her throat. This patient has become very degraded in habits, and her mind is greatly impaired. She entertains all her former delusions, is impulsive, violent, and disposed to make sudden assaults. Her prospects for recovery are very poor indeed.

Auditory and visual hallucinations are frequently found. In one case hallucinations of hearing were so intense and unremitting, as to almost completely destroy the comfort of the patient, and render him at times abject and miserable. Persecution from these evil spirits, as he was wont to style them, was occasionally so severe as to cause him to lose all self-control, to scream, and to cry out in agony. On one occasion he wrote to his father that "it is bother, bother, bother, all the time," and added, "insanity is a queer thing; persons who are not afflicted know not how much they suffer or how they feel. I have had spells come over me to strike people with my fists, or break the windows, but they were of short duration."

Another patient imagined that people made faces at him. He also heard himself mocked and accused of crime, and believed that a conspiracy was formed against him, to thwart him in all his undertakings. He had many other symptoms appertaining to this form of insanity, was irritable and excessively vain, and imagined himself a very superior person.

The tendency to the commission of sudden acts of violence has been alluded to, as a striking characteristic of this variety of mental disease. It has been illustrated in the cases mentioned, and instances might be multiplied. An hallucination or delusion (as in the case of N. E., who thought his mother a devil) may furnish the motive for an assault, or the attack is of an explosive character, is wanton, outrageous, and due to excessive irritability from sexual exhaustion, as in several of the cases quoted.

A patient was recently admitted to the asylum, whose case may be of interest in this connection. Some of the particulars recorded are doubtless familiar to certain members of the Society. The patient, a male, aged twenty-nine years, was born in Germany and probably inherited from his mother a susceptible organization. He served three years in the army, then learned a trade and supported himself by his own exertion until five years ago, at which time he became deranged. He describes a sensation coming upon him then like a lightning stroke, which prostrated him temporarily, and gave him a severe pain in the back. In all probability he has never been well in mind from that time to the present. Soon after the attack he fell in love but did not marry—he says because he had not means. He has been in America most of the time for the past four years; has resided with a relative and worked at his trade. His mind has been unsettled, however. One year ago, in January, he again became anxious to marry. This and other symptoms of mental disorder induced his friends to send him to Germany for a six months' sojourn. One month ago he met on the street of one of our cities a lady whom he had formerly seen in a vision, and whom he recognized as his "double life." Procuring a pistol he visited this lady's house, and demanded of her that she marry him. Upon her refusal so to do, he shot at her three times. For this deed he was arrested, but his insanity being undoubted, he was committed to the asylum. His manner is that of one who has been insane for a long time, and is the subject of persistent delusions. He had at first a restless, suspicious expression of countenance, but was quite communicative. His conversation is extravagant. Although he admits he has had little schooling, he believes with a better knowledge of the English language he would be the first lawyer in the land. He has no appreciation of his condition, and considers himself perfectly sound in body and mind. He has had many visions. In one of them a female appeared and took improper liberties with his person.

The physical symptoms associated with this form of mental disease are attributable to the general impaired state of the nervous system, particularly of the vaso-motor system. We find pain in the back and limbs, disorders of circulation, irregular action of the heart, dilated pupils, wet hands and a coated tongue. Disorders of sensation are occasionally observed. The patient complains of languor, lassitude, and a feeling of general weakness. He is indisposed to exercise. Constipation and general derangement of the secretions are more or less constantly present.

In the above paper I have endeavored to call attention to the delusions and peculiar manifestations which I regard as characteristic of this form of insanity. In brief these are:

1. An intense vanity and self-love;
2. Extreme selfishness and disregard for others;
3. Religious delusions and perverted moral sentiments;
4. Delusions referable to the sexual system;
5. Hallucinations of sight and hearing of a certain definite character;
6. Emotional disturbances;
7. Homicidal impulses and a disposition to commit sudden acts of violence; and
8. Certain physical disorders referable to an impaired state of the nervous system.

About 10 per cent. of all patients at the Eastern Michigan Asylum suffer from this form of mental disease.

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HYSTERO-EPILEPSY IN THE MALE.

In the first case which I shall present for consideration to-day we are confronted with the important question of the diagnosis of epilepsy from hystero-epilepsy. The diagnosis in this case is more difficult because the patient is a man. That hystero-epilepsy, and other manifestations of hysteria, do occur in males is a fact considered in neurological circles as beyond the pale of dispute. Richer has recorded a case in a lad of 12 years, from the practice of Charcot; Olier reports and other observers have placed several cases on record, and I have seen a few cases, but the whole number as yet reported is not large.

I will show you the patient, giving his history in some detail, and will then discuss the question of diagnosis.

W. F., aged 28 years, married, has one child. His seizures began seven years ago, when he had an attack while playing a game of pool. At this time he had, according to his account, a sudden feeling of giddiness or vertigo, in which he fell over and had a spasm, during which he thinks that he was unconscious. After the seizure he suffered from headache, but had no disposition to sleep.

On the night of the day on which he had his first attack he had a series of seizures similar in character to the first. In one of these he fell on a goblet and cut his arm. The spasms rapidly succeeded each other, and continued the entire night. From that time until the present he has been subject to these spells, though the paroxysms are very irregular in frequency. Sometimes he will have several attacks in a day. Again, he will be free from them for days, and perhaps for two or three weeks, but never for more than a month at a time. They have come on him while walking in the streets, and on several occasions he has been taken to different hospitals. Once he fell off a street car and bruised himself, but not severely. About three years ago he fell down-stairs and injured his ankle. Two years ago he fell and cut his chin on the curbstone. The present is his fourth admission to this hospital. On his first admission he only remained over night; on his second and third he remained in the house for two or three weeks.

He has now been in the house for four weeks, and has had spasms every day and night since admission. He has had, by actual count, from five hundred to six hundred since he came in; and in one evening, from 7 P.M to midnight, he had no less than thirty-eight. These seizures, which have been witnessed by myself and the two resident physicians, differ but little from each other, although at times some are more violent than others. They begin with a forced inspiration, then the patient straightens himself out and breathes in a stertorous or pseudo-stertorous manner. The pulse in this stage becomes slow, and at times is as low as forty-eight per minute. The temperature is not elevated during or after the paroxysm, but is normal or sub-normal. The arched position is sometimes taken, but the opisthotonos is not very well marked. The paroxysm ceases by an apparent forced expiration, and the breathing then becomes normal, the patient remaining in a somewhat dazed condition, which is only momentary. During the attack the patient says that he is unconscious of his surroundings. In the interval between the attacks he suffers from headache and from pain over the region of the stomach. He also has tenderness on pressure over the lumbar vertebræ. In not one of the many attacks from which the patient has suffured has he bitten his tongue.

You see that we pay attention to many apparently insignificant points, but it is only by so doing that we are able to come to any positive conclusion.

What have we to deal with here? Is it epilepsy or hystero-epilepsy? It has been pronounced to be both. It may be both,—that is, two forms of disease in the same patient. It may be neither, but this is not likely. I believe the case to be one of hystero-epilepsy. Both in hospital and in private practice we are often called upon to decide as to the nature of certain grave spasmodic attacks, and to arrive at a correct diagnosis is sometimes exceedingly difficult. The fact that the patient is a male does not decide for epilepsy, as I have already stated. The rules of diagnosis are almost the same for males as for females, with a few exceptions.

In making a diagnosis between epilepsy and hystero-epilepsy, we can often come to a correct conclusion as to the nature of the attack by giving close attention to the following points: 1. The history and the causes of the disease. 2. The physical and mental condition of the patient. 3. Above all, the phenomena of the spasmodic attacks.

In hystero-epilepsy a careful study of the history of the case will often elicit a moral cause. We notice, in passing, that in hystero-epilepsy the patients rarely injure themselves seriously by falling, whereas in true epilepsy they very often suffer from severe injuries. This patient has injured himself slightly several times, and once somewhat severely.

The mental and physical conditions of a person suffering from hystero-epilepsy differ widely from those of the true epileptic. In hystero-epilepsy the number of attacks has little or no apparent influence on the patient's mental or physical conditions. There is no deterioration of the mind. The memory is not impaired. Hystero-epileptics are usually well nourished, and frequently of good physique. These diagnostic points are illustrated in this case.

This is not the case in true epilepsy. The number of attacks has a decided effect on the patient's mental condition. I show you here a true epileptic, whom I have brought before you simply for the sake of contrast. His demented appearance is obvious to all, whereas in the hystero-epileptic nothing in physiognomy or carriage indicates that the patient has been suffering from any disease.

I do not say that all epileptics have no mental power, but that some deterioration of the mind usually occurs and becomes well-marked as the case progresses.

The paroxysms in epilepsy are very well marked, especially if it is epilepsy of the grave form. They are often ushered in with a scream. The patient suddenly falls, and at times is severely injured. The convulsion is generally violent, rapidly alternating from clonic to tonic spasm, without special phases and periods. Complete and profound loss of consciousness, with great distortion of face and eyes, is present. The tongue is frequently bitten, and after the attack the patient passes into a stupor. In regard to the distortion of the face and eyes, we find this sign usually absent in hystero-epilepsy,—as in this case and one which I saw at the German Hospital, in which the patient had a series of violent seizures lasting two hours, with marked opisthotonos, yet the facial expression remained calm and serene throughout.

These symptoms being so well marked, a diagnosis of epilepsy from hystero-epilepsy would seem not to be very difficult. Yet this is not true. At times it is almost impossible to decide one way or the other. It is said that in hystero-epilepsy there is no loss of consciousness; but this statement is not strictly true. This point is the most difficult one for physicians to overcome in arriving at a diagnosis, as in many text-books complete loss of consciousness is considered the strongest evidence of epilepsy. We do have loss of consciousness in hystero-epilepsy, particularly in the epileptoid varieties, or in the epileptoid period of the grave attack. Richer says that the loss of consciousness is complete during the entire epileptoid period in a case of a regular type.

To decide whether a patient is conscious or unconscious is not as easy as one would suppose. Varying degrees of consciousness may be present.

At times in hystero-epileptic attacks the patient may respond to some external influences and not to others. This is well shown in the case before you. We have a perverted consciousness, and it is hard to decide whether the patient is positively and entirely unconscious of his surroundings.

In hystero-epilepsy the attacks are rarely single; usually they are repeated, as here, constituting the hystero-epileptic status more frequently than in epilepsy, although there is an epileptic status terrible in character.

In the series of attacks that these patients suffer from the seizures come on in rapid succession, the interval being brief, but may at times have a considerable time elapsing before the recurrence of an attack. These series are apt to last for hours or days.

Charcot and Bourneville's strong diagnostic point between hystero-epilepsy and true epilepsy holds good in this case—namely, in epilepsy we have a peculiar rise of temperature during the convulsion, even to 104° F., whereas in hystero-epilepsy the temperature is nearly or quite normal.

The attacks that compose a series in hystero-epilepsy vary in duration and in violence. At first they are of a violent character; toward the end the seizure may gain in extent, but it will diminish in intensity.

Arrest of attacks by ovarian compression in females and by the application of electric currents can be brought about in hystero-epilepsy and not in epilepsy.

The action of bromides, drugs which are often used in both affections, favors the opinion that the two diseases are distinct. Bromides, according to Charcot and Richer so effective in epilepsy, are without effect in hystero-epilepsy.

Dujardin-Beaumetz, however, on the other hand, declares that "who says hysteria says bromides," and also that at the present time there is not a hysterical patient but has taken bromides, the bromide of potassium being the most frequently used.

The truth, I believe, is that bromides may be useful for temporary purposes, for certain phases and symptoms of the disease, but produce no radical permanent improvement in the disease hystero-epilepsy. Bromides have not helped this man. Moral treatment, electricity, and metallic tonics are more beneficial.

HYSTERIA AND EPILEPSY IN THE SAME PATIENT.

The next case which I shall show you presents another diagnostic difficulty with reference to hysteria and epilepsy.

S. S., aged 39, female, a Swede, came to this country in 1869. She says that her mother had fits of some kind. The patient had her first fit when she was four years old. Her menses did not come on until she was 19. With the appearance of her periods she had fainting-spells off and on for two years, and in these spells she would fall to the ground. After two years she improved somewhat, but still would have an occasional seizure like petit mal. Four years ago she had a severe fit in which she bit her tongue. This was a paroxysm of true epilepsy. It was witnessed by our chief nurse, a competent observer. Since then she has had attacks of some kind every month or oftener. She rarely has a true epileptic seizure. Often, however, she has hysterical and hystero-epileptic attacks. These paroxysms have been witnessed by myself, and by my resident physician and the nurse. Rarely they are epileptic, frequently they are hysterical.

Mental excitement will often induce a hysterical spasm, as was seen in this patient yesterday. Having had some trouble with some of the other patients, she began to cry and scream, then convulsions soon ensued. She was not completely unconscious, the tongue was not bitten, and no perceptible change in her countenance occurred. She did not sleep after the paroxysm. Her memory is somewhat impaired.

The coexistence of hysteria and epilepsy with distinct manifestations of the two neuroses, the condition here present, has been most thoroughly considered by Olier. In discussing the case before you, let me give some of the facts and inferences of his paper. Beau, in 1836, and Esquirol, in 1838, first showed the coexistence of hysteria and epilepsy in the same person. Landouzy, in 1846, gave the name of *hystero-epilepsy with separate crises* to cases in which the two neuroses with distinct attacks occurred in the same patient. I think, with Olier, that it would be better to confine the term hystero-epilepsy to the affection in which hysterical and epileptic symptoms are mixed in the same attack, the disease so well described by Briquet, Tissot, and others, but above all by Charcot and Richer.

According to Charcot, this disease is simply the most intense degree of hysteria.

In France the distinct existence of hysteria and epilepsy in the same individual is hot, according to Olier, a very exceptional fact. M. Beau has reported it twenty times in two hundred and seventy-six cases.

The different modes of existence of hysteria and epilepsy, when manifestations of the two neuroses remain distinct, have been summed up by M Charcot as follows:

1. Hysteria supervening in a subject already epileptic.
2. Epilepsy supervening in a subject previously hysterical.
3. Convulsive hysteria coexisting with epileptic vertigo.
4. Epilepsy developing upon non-convulsive hysteria (Contraction, anæsthesia).

Our patient probably illustrates the first of these modes of combination.

OOPHORECTOMY FOR EPILEPSY OR HYSTERO-EPILEPSY.

H., aged 17, began to have epileptic or hystero-epileptic seizures in her thirteenth year. She had never menstruated. After some months' treatment with drugs, attention to diet, etc., without any result, eight months since an operation was performed, in which the ovaries and ovarian tubes were removed. Twelve days after the operation she had four convulsive seizures. She made a good recovery from the operation.

This operation at times is successful, but often it is not. This patient had several attacks, and then for a considerable period she was exempt from any spasm. After the operation, however, she had an attack of acute inflammatory rheumatism, with endocarditis and valvular trouble. This fact should not be lost sight of, for it has a practical bearing on the case; it has been noticed that convulsive paroxysms will sometimes be held in abeyance during febrile affections.

Last week the patient had several severe convulsive seizures, with loss of consciousness. Her eyes became fixed and turned upward; the face was at first pale, then red; the body became rigid, but no marked opisthotonos, and the patient for a few minutes afterward was delirious or semidelirious. (The patient had a slight spasm during the clinic).

The question will arise whether it is right to perform such an operation for either epilepsy or hystero-epilepsy. I myself do not think that such procedure is called for except in rare instances, and decision in favor of the operation should be greatly influenced by the following considerations:

1. Whether or not any disease of the ovaries is present.
2. Whether or not any aura proceeds from these organs.
3. Whether or not the patient suffers from violent nymphomania.—*Medical Times.*

Kentucky State Medical Association.

Thirtieth Annual Session, held at Crab Orchard Springs, June 24, 25, *and* 26, 1885.

AFTERNOON SESSION.

ONE of the most interesting and at the same time one of the largest meetings of the Kentucky State Medical Association assembled, at 4 P. M., in the hall of the Springs Hotel, of that historic little town Crab Orchard, near the southern border of the State.

Dr. William Bailey, of Louisville, read his report as Chairman of the Standing Committee on

THE PRACTICE OF MEDICINE.

In review of the important features of the practice of medicine at the present time, he passed a scathing criticism upon the method employed by so many of our leading drug manufacturers for the introduction of their wares to the profession. The sending of samples has reached such proportions as to be of necessity a nuisance to the practitioner. The time has come for the profession to call a halt upon this custom, and to demand that the practitioner shall prescribe the manner in which his remedies shall be prepared, and not submit to whatever the fancies of the manufacturer may direct. As a rule, these preparations come well attested, so far as the number of certificates is concerned, but all know how and whence such testimonials are obtained, and of how little value they are as evidence of the quality of the article to which they refer.

Few subjects at the present season claim the interest that cholera is assuming, owing to its appearance again in Spain. High honor is due, he said, to those fearless investigators who are devoting their time and energies to the discovery of the cause and mode of prevention. The hope was expressed that they may be rewarded by the discovery of facts that shall lead to its prevention or even its cure. The relation between the comma-bacillus and cholera was next considered. Koch, as is well known, has discovered a bacillus for which he claims the origin of the disease. Straus has described a bacillus which he believes the same as that of Koch, but which was found in the alimentary canal of healthy individuals. In the light of recent experiments it is probable that the comma-bacillus is a result rather than a cause of cholera. Why is it, he asked, that the bacilli, if the cause of cholera, are not found in the blood and in all the tissue, just as we know the poison of smallpox must exist.

For the germ theory he expressed admiration, but thought that the whole subject should still be held *sub-judice.* In the end we shall probably find that the cause of cholera as well as of dysentery, malaria, and other infectious diseases, is atmospheric and telluric rather than the presence of microörganisms.

Dr. Dudley S. Reynolds, of Louisville, failed to recognize the force of the logic employed: First, he could see no force in the objection to the finding of the bacillus only in the alimentary canal; and, second, he could see no analogy between cholera and smallpox. It is well known, that whatever the cause of the former disease, it produces its results by so irritating the lining of the intestinal tract as to deplete from the general circulation to such an extent as to cause fatal thickening of the blood. Smallpox, on the contrary, is a disease of the blood. The speaker favored the germ theory, and thought that the recent investigations of the epidemic at Plymouth, by Drs. Shakespeare and French, had added much force to the belief that typhoid fever also depends upon the action of a germ.

Dr. Joseph N. McCormick, of Bowling Green, thought the germ theory of the origin of cholera better established than the theory of atmospheric and telluric origin. As an argument for this we need but refer to the fact that the disease does not always prevail with anything like the same degree of severity in different places, having, so far as we can discover, precisely the same atmospheric and telluric surroundings when infected at the same time. Special consideration was directed to the outbreaks of cholera in this country in 1873, and in France and Italy last year. In every instance where careful investigation was made of the origin of the disease in any particular district, it was found to be clearly traceable to a previously infected locality.

Dr. Yeager, of Campbellsburg, objected to the germ theory as not being sufficiently established, and placed more importance upon the atmospheric and telluric influences in the production of an outbreak of cholera.

Dr. J. B. Marvin, of Louisville, feared that the essayist had not pursued his studies of the cholera bacillus quite to the extent to which he should have done before making a positive statement of his disbelief in the theory of its causative relation to the disease. There have been described, up to the present time, at least three distinct varieties of comma-bacilli, one described by Koch and two supposed by their discoverers to be the same as he had described. Of only one variety, however, could it be asserted that it was capable of producing cholera. Koch has not only produced the symptoms of the disease by inoculation with the germs he had discovered, but he has cultivated them and produced the same results from inoculation with germs of succeeding generations of the microörganism. In conclusion and in argument for the truth of the germ theory of the disease, the author cited the outbreaks of the disease that have occurred at Mecca. It has been observed that notwithstanding the obligatory presence of large numbers of pilgrims, all obliged as a religious duty to drink of the water of a single well, cholera did not appear until the pilgrims arrived from certain districts where the disease was endemic. Upon one occasion when there were present 100,000 pilgrims, a band arrived from one of these infected districts ; the disease broke out within 48 hours, and in the space of but a few days had destroyed 15,000 people.

Dr. Bailey in concluding the discussion of his paper, remarked that he had wittingly made few positive assertions. His object, upon the attainment of which he felt that he had reason to congratulate himself, had been rather to exhibit that wholesome amount of skepticism which is always an incentive to the investigation of a subject and a means of arriving at the truth.

EVENING SESSION.

Vice-President Dr. L. S. McMurtry, of Danville, being in the chair, the President, Dr. Pinckney Thompson, of Henderson, delivered the

ANNUAL ADDRESS.

In introduction he congratulated the Association upon its having attained the honorable age of thirty years, and upon the large number permitted to be present. Meetings of this sort are profitable in many ways. Here we compare views, and interchange opinions on the causes and treatment of diseases. It is a safe assertion that the physician occupies a position second to no other class of men. An old Roman said, "Men are never so like gods as when their aim is to secure health to their fellow-men." The true physician must be upright, truthful, pure, with the sick and with the well.

The remaining portion of the address discussed the evils which are at present sapping the life of society, particularly the errors of education and dress, becoming more and more recognized as responsible for the destruction of the physique of the young, and especially of young women. The building of high, four and five-story schools was particularly condemned, on account of the harm resulting from the necessary amount of climbing in going from one recitation room to another. Bad ventilation of these buildings is another evil of the highest importance, to which parents and others should give attention.

Dr. A. W. Johnston, in making the report of the Committee on

THE SURGERY OF THE GENITO-URINARY ORGANS,

Spoke first of the dividing of strictures of the urethra, commencing at the division of the meatus and proceeding backward. One of the most important discoveries in this direction of late years, was that of the relation which exists between the calibre of the urethra and the external diameter of the penis. With regard to the dilatation of these strictures, he agreed with Dr. Otis, that "if you want to get rid of a stricture, you must stretch it to its utmost extent, and cut it while on the stretch." This is the treatment for most cases, but still there is a field for the rapid dilator. Brief reference was made to inflammatory affections about the orifices of the seminal ducts, prostatic, and vesical calculi. With reference to the latter, the opinion was expressed that in the near future, the man who operates for stone, will employ the method of crushing, and rapid extraction, or abandon his practice.

The subject of the next paper was

THE REPORT OF A CASE OF LIGATURE OF THE SUBCLAVIAN ARTERY IN THE THIRD PART OF ITS COURSE, FOR TRAUMATIC ANEURISM, WITH SUBSEQUENT INCISION OF THE SAC AND RECOVERY,

By Dr. L. S. McMurtry, of Danville. The patient was a robust man, aged 30 years, who, thirteen months previous to the operation, received a pistol-wound of the shoulder, the ball passing deep in the vicinity of the joint. In a few weeks a small lump appeared in the axilla, which increased in size until at the time of operation, thirteen months afterward, it had reached the dimensions of a child's head. The tumor occupied the entire axillary space, and had burrowed up beneath the pectoral muscles. Paralysis of the arm, forearm and hand, resulted from the pressure on the brachial plexus of nerves, so that this member hung useless at the side. The operation was performed two days after the patient called for advice. A silk ligature was passed around the subclavian artery at the external border of the anterior scaleni muscles. Pulsation was at once arrested in the tumor, and never returned. The radial pulse, which before the operation was feeble and fluctuating, was annihilated. The patient made a prompt recovery without accident or complication. On the twenty-first day, the ligature came away. One month afterward, the patient returned home and was not seen for four months. After the lapse of this period, the patient again presented himself. The tumor had materially decreased in size and was without pulsation or tenderness. The pressure on the plexus of nerves remained with the consequent paralysis. It was then determined to extirpate the tumor. The patient being anæsthetized, an incision was made and a ligature thrown around the axillary artery on the distal side of the tumor. The tumor was then laid open, the clots removed, and the cavity cleaned. The patient is now making a good recovery, and will soon be able to resume his occupation as a farmer. The speaker said that when the conditions are considered it is not surprising that ligature of the subclavian for axillary aneurism is followed by the frightful mortality of 48 per cent. The operation just described, although embodying the principles of the Hunterian operation, is not far removed from the method of Anel. Indeed, when, as in the case reported, the aneurism extends above the acromial thoracic branch, the circulation through the sac is completely arrested by the ligature. Hence suppuration of the sac and secondary hemorrhage are to be anticipated. Again, the ligature is placed in the vicinity of large branches. These facts explain the high death-rate after the operation. The case reported is an illustrative one and the type of a class of circumscribed traumatic aneurisms resulting from wound of the coats of the arteries. The aneurism in these cases approaches in character the pathological form of the disease, with this important exception, that the coats of the arteries above and below the tumor are not involved and are free from disease. It is this feature which makes this class distinct from idiopathic aneurism so far as prognosis and treatment are concerned. In eight cases of this class cited by Erichsen—aneurism of the axillary artery resulting from stabs and gunshot wounds treated by ligature of the subclavian—not one fatal result occurred.

Dr. W. O. Roberts reported the case of a man who was stabbed just above the clavicle. Slight hemorrhage occurred at the time, but it was observed that but little pulsation was perceptible at the wrist, and the arm of the same side was paralyzed. The opposite pulse was feeble and beating at the rate of 140 per minute. When he first saw the case, the wound had healed and there was no enlargement. Upon examination of the chest, the apex-beat of the heart could be distinctly felt just below the right nipple, while percussion of the left side elicited flatness throughout. The man died twenty-four hours after. The autopsy revealed the fact that the knife had penetrated the scalenus anticus muscle and punctured the vessel. Around the seat of puncture was a small traumatic aneurism which had ruptured. There was a large opening into the pleura, and this whole cavity was filled with blood, the lung being pushed back against the thoracic wall.

Another case was that of a man with a large osteosarcoma of the shoulder, which was removed by disarticulation at the shoulder-joint. There was no involvement of the scapula or shaft of the humerus. During the operation very little hemorrhage occurred. The patient did well until the fourteenth day, by which date the wound had healed through the upper two-thirds. Then a slight hemorrhage occurred. Six hours later, there was a considerable gush of blood, which had to be arrested by pressure upon the subclavian. The original wound was then opened, and the hemorrhage was proved to be from the axillary artery. This was ligated *en masse.* Five days later, the hemorrhage again started and the axillary artery was ligatured, with the result of completely arresting the bleeding for two weeks. Then a slight hemorrage occurred, but was finally controlled by pressure.

THE REPORT ON OPHTHALMOLOGY

was read by Dr. Dudley S. Reynolds, who chose as his subject: *The Sources of Error in the Operations Intended to Cure Squint.*

It is necessary, he began, before arriving at any conclusion with regard to the treatment of a persistent squint, to make a thorough investigation of the case, in order to recognize what are the real causes of the trouble. Although there had been a great many speculations concerning this, Donders, in the early part of this century, was the first to recognize the more important causes of it. Graefe was the first to recognize the importance of the discovery, and to apply to it a better mode of treatment than had been employed. The reporter then reviewed the various causes of strabismus: errors of refraction and accommodation, troubles of nutrition, troubles in the sensorium, opacities of the cornea, affections of the coats of the eye or of the vitreous humor, etc. For the relief of such cases, it was recommended first of all to relieve whatever errors there might be in the accommodation by the use of properly adjusted glasses. The operation for squint should not be made unless the affection is single. After describing in brief the methods of operating, the author concluded with the advice to treat all squints as soon as possible after they begin to develop, the operative procedure being reserved for cases which have existed too long to be relieved by other means.

Dr. Cheatham remarked that he made it a rule never to operate upon these cases until the child has become old enough to wear glasses for the correction of the difficulty, unless the sight is failing rapidly.

Dr. E. Williams thought that the cases of complete recovery from squint are not numerous. The sufferer from alternating squint more frequently completely recovers than from single squint. There is some etiological element in many cases of squint which is not explained by reference to errors in refraction. There seems to be a want of natural balance between the muscles.

ACUTE CATARRH OF THE MIDDLE EAR, AND ACUTE SUPPURATION OF THAT ORGAN,

was the subject of the report on Otology, by Dr. W. Cheatham, of Louisville.

To bad management can be traced nearly all the chronic cases of suppuration from the middle ear, and the two are in a great measure the cause of many cases of great suffering and finally death. The paper was for the most part clinical, embodying the reports of a large number of cases that had come directly under the observation of the author. For the relief of acute inflammation of the middle ear with severe earache, the speaker recommended the use of the aural fountain-syringe or douche, with plenty of hot water, its use to be continued for some time. The point of the tube should be long enough to pass well into the ear. In conclusion, the hearers were cautioned against the use of poultices. They should never be used until all other measures have failed.

DISEASES OF CHILDREN.

The relations of malnutrition and pneumonia severally to the etiology of children's diseases were first considered; then the more common factors of bad hygiene. While we do not see the sad pictures in the faces of children in this country that are witnessed in foreign countries, it will not be long before restraining legislation will be required by such a condition of affairs. Children should be prevented from engaging in work in shops at too tender an age.

The question of feeding is one of the most important we have to consider; in large institutions it is of the utmost importance. As high as ninety per cent. of mortality has been reported from some of the foundling hospitals, the majority of which was due to improper feeding. In the hospital at Louisville, where mother's milk is alone used, the mortality has been but five per cent. No perfect substitute for this has yet been devised. Another great error is the overfeeding of children—a very frequent source of trouble.

Cholera infantum was next considered. In referring to its etiology, the author remarked that the term thermal, as applied to the disease by Dr. Wood, was scientifically correct, inasmuch as it is more closely allied to sunstroke than to any other affection. This was proved by the result of the therapeutics applied to it by the same author.

The treatment is all important. Hypodermatic medication should be almost exclusively resorted to, giving in the early stage a solution of morphia and atropia. A single injection of the proper quantity will, in most cases, cause a halt of the symptoms, even when the child is in a state bordering on collapse. The salicylates of lime and soda are the best remedies that have been proposed.

Diathesis and cachexia are to be carefully considered in all cases. Many a child was lost while its disease is properly treated by its name, because the peculiar diathesis is not recognized.

Nothing is more frequent in childhood than fever. It is not, however, as a rule, very severe. Most fevers have their origin in the intestinal tract. The essayist held the opinion that most cases of malarial and intermittent fevers reported in children are in reality cases of typhoid. The reason that infants so seldom have typhoid fever is not because of the supposed non-development of the Peyer's glands, but because, as proposed by Gebhardt, the poison of typhoid fever enters the system through drinking-water, and infants drink less water than adults or children. This view is supported by the fact that typhoid fever occurs most frequently at the age when children drink the most and with the least discrimination of water.

Diphtheria, its etiology and treatment, was made the subject of especial comment; and a case was reported in which tracheotomy was followed by recovery, in a case of croup. No advance, however, has been made in the treatment of this disease.

In conclusion, he remarked that more learning and less medicine is needed in the treatment of the diseases of children. Plenty of good food, fresh air, sunshine, and good nursing, with now and then a dose of castor oil, is about all that is required to raise a child.

Dr. Webb inquired more particularly with regard to hypodermatic medication, especially with reference to the dose for an infant. Several years ago he had employed this method in treating a case of this kind, with the most satisfactory result.

Dr. Howard remarked that the line should not be drawn between children raised on the bottle, but between children raised in the city and those raised in the country. We do not kill them that way, he said, in the country. He would prefer the chances of raising a child by the bottle in the country to letting it nurse a delicate mother.

Dr. P. B. Scott said that the chief reason for the greater mortality of children raised in the cities over country children lies in the fact that in the country there is plenty of good milk and fresh air. He thought the closest line should be drawn around the feeding of children, both as to the quantity and the quality of the food.

With reference to the hypodermatic medication of children, he said that the same remark had been made by the essayist at the County Medical Society, and with a sort of "eureka" air. He had employed the method some years with success, but he did it with fear. He was further curious to know what advantage could be derived from the combination of morphia and atropia. Morphia is, to say the least, one of the most dangerous remedies that can be used in childhood. It should not be used in combination with other remedies, but given separately.

Dr. William Bailey remarked that the subject of feeding might be summed up in the statement that the most direct way of starving a child is to overfeed it. He further asked, Is not the real cause of the symptoms resembling inflammation of the brain in cholera infantum anæmia of the brain? If this be true, we should abstain from the adminstration of the bromides, but rather give opium and remedies which tend to congest, and keep the head low.

Dr. Pinckney Thompson thought the greater part of the blame for diseases of children in cities lies at the door of unhealthy mothers. As far as the lacteal secretion is concerned, the woman can be compared to any other animal. If an animal is kept constantly irritated and restless, its milk is of no nutritious value, and just so with a weak, nervous, irritable woman.

Dr. Larrabee, in concluding the treatment, expressed agreement with the statement that anæmia of the brain is the cause of the cerebral symptoms of cholera infantum. In reply to the inquiry about the dose of morphia and atropia, he stated that he used the hypodermic pellets containing one-fourth of a grain of morphia and one-sixteenth of a grain of atropia, making a solution at the time of using, and injecting enough of the solution to contain one-two-hundredth of a grain of morphia and about one-six-hundredth of a grain of atropia. This, for an infant under a year.—*Phil. Med. News.*

Development of Inoculated Tuberculosis.

I. *Tuberculizing results of inoculations.*—The inoculation is performed in the subcutaneous cellular tissues, in the peritoneum, or in the anterior chamber of the eye. The latter is the favorite and the best location. Inoculation is effected by means of a fine bistoury or lancet; charged with a minute, almost microscopic, fragment of tubercle, or by means of a Pravaz syringe, filled with a dilution of tuberculous matter, or sputum.

These are the sequels that are observed, and these data apply equally to the peritoneum, where the infection is always produced the most rapidly.

Local tuberculosis.—Several days after the operation there is produced, at the point of inoculation, a slight swelling which does not affect at all the general health.

General tuberculosis.—Then at the end of a variable time, the animal becomes enfeebled, falls into marasmus, and succumbs, often after a colliquative diarrhœa, like that of phthisis. At the necropsy there is observed, in addition to the local tubercle already become cancerous, little miliary granulations around the point of inoculation, tuberculous engorgement of the glands, and granulations more or less casefied in the lungs, intestine, liver, kidneys, and peritoneum; this is general tuberculosis.

Inoculability of artificial tubercles.—Tuberculosis thus produced is undoubtedly the true, the bacilliary kind, for it may easily be inoculated in animals of the same or of different species, and with the greatest certainty for a succession of generations.

II. *Counter-proofs and objections.*—Critics have denied to this experimentation, its veritable character; they have alleged in objection, the ordinary, or indifferent nature of these products, saying that we have to do here with simple inflammatory nodules, but whose mode of production has nothing specific about it.

Effects of inert substances.—In fact, instead of tuberculous or caseous matter, experimenters have introduced, for purposes of comparison, inert bodies, such as lint, blotting paper, débris of cancer into the peritoneum. They have injected into the veins pus from an abscess, or lycopodium powder, and in every case have obtained, besides the local granulations, general tuberculoid alterations.

The subcutaneous insertion has produced the same effects. By introducing an irritating liquid, like croton oil, or some irritant powder, into the cellular tissue, they have seen produced an anatomical process of the same kind as tubercle; you may even see the liquid injected (provided it be of the nature of a pigment) in the giant cells, which develop in the inflammatory nodules (vide Emile Marchand, in Virchow's Archives, 1883).

According to this view, then, tubercle does not act as a virus, but only as an ordinary irritant, and the neoplasm that results from it by inoculation resembles all the tuberculoid products which are obtained by irritant foreign bodies. From an anatomical point of view this is indisputable, but when you come to consider the pathological properties of these morbid productions, you find an important difference.

Specific effects of tuberculous substances.—Ingenious experiments of Toussaint, and especially of H. Martin, have definitely cleared away the difficulty. "Tuberculous matter," says this skillful physiologist, "determine, after incubation, the formation of a local tubercle to which succeeds a general tuberculosis." On the contrary, if you inoculate material extracted from the nodules which result from the injection of foreign bodies, it never gives rise to a general tuberculosis; it loses, even after the second generation in the series, the property of determining a local inflammation. It is then the series of inoculabilities which characterizes the true tubercle; its specific character is thus demonstrated, despite its anatomical similarity to the products of ordinary irritation. The fact that the tubercular nodules present the characteristics of an inflammatory lesion is of little consequence, for they have their pathognomonic properties, both from the point of view of origin and of serial reproduction.

Tuberculosis by inoculation in the eye.—We have here an irrefutable mode of demonstration, for one can follow step by step all the effects of the tubercle bacillus on the different tissues of the eye.

It was Cohnheim who first conceived the ingenious idea of introducing tuberculous matter in the anterior chamber of the eye. The recent published experiments of Baumgarten entitled: "A Demonstration by Histology of the Pathogenic Value of the Tubercle Bacilli," leave no longer any doubt respecting the invasion of the virus, the progressive march of the bacilli in the media of the eye; you there almost see the bacillus in his insidious operations. You introduce the tuberculous substance in the anterior chamber; during the first four days there is no visible alteration in the tissues of the eye; but every day you see the bacilli multiply from this center of the origin. From the commencement of the fifth day, you note that the bacilli are spreading and increasing in number beyond the fragment of tubercle, to occupy the cornea and iris; but it is in the points where they abound and crowd them, that we see produced new epithelial cells, at first in small quantity, then in numbers more and more marked, till the tubercle nodule is found. The dimension of the tubercle and its richness in epithelial cells are always proportioned to the quantity of bacilli.

Facts of the same kind are observed in the kidneys when under the irritant influence of the bacilli. The parasites accumulate in the glomeruli, while the parenchyma is still completely intact.

It is proper to remark that these experiments have been performed on hares, which constitute the most favorable culture-field for the bacilli; in this animal tubercle flourishes and progresses always. It is not the same with the dog, which is little subject to tuberculosis; this animal offers so much resistance that inoculated tuberculosis remains ordinarily localized, and undergoes arrest (Friedlander).

Brain Syphilis.

As of interest in connection with this interesting subject, we note that before the Medical Society of London (April 27th), Dr. Althaus read a paper on this case, which was that of a clerk, aged 28, who had had a hard chancre about four years before, and, after having been apparently well for three years, was affected with ophthalmoplegia of the left eye, and six months afterward with hemiplegia of the right side. When admitted into hospital, he showed almost complete paralysis of all the muscles supplied by the third, fourth, and sixth nerves, including the iris and the ciliary muscle. The intellect was impaired; and there was incomplete hemiplegia of the right side. Dr. Althaus argued that this group of symptoms could only be due to syphilis. With regard to the hemiplegia, he laid chief stress on the age of the patient, the fact that there had been no apoplexy when the stroke occurred, and that the paralysis had been incomplete from the beginning. Ordinary hemiplegia did not occur in the prime of life, except where there was heart disease, or diabetes, or tabes spinalis, or alcoholism; it was almost invariably ushered in by apoplexy, and was complete at least for the first few days or weeks; nor was it accompanied with palsies of the ocular muscles. A peculiar symptom in the present case was an enormous exaggeration of the tendon-reflex in the palsied limbs, out of proportion to the degree of paralysis as well as of muscular rigidity which were present; and Dr. Althaus was inclined to consider this as a pathognomonic symptom by which syphilitic hemiplegia was distinguished from ordinary hemiplegia. With regard to the nature and seat of the pathological lesion, he argued that there was a gumma at the base of the brain, near the inner surface of the crus cerebri, close to the pons Varolii, which, by compression, had caused paralysis of the three cranial nerves mentioned, and, by further extension later on to the crus itself, which contains the crossed pyramidal strands, caused softening of these parts, and thereby hemiplegia. He concluded with some remarks about the prognosis of syphilitic lesions of the brain generally, stating that specific treatment was only successful in primary and truly specific lesions; but where gumma had already caused wasting of the cranial nerves and softening of cerebral tissue—that is, secondary and non-specific lesions—no amount of mercury and iodide of potassium could effect a cure. From this he drew the conclusion that an energetic specific treatment should be adopted as soon as the slightest symptom of syphilitic brain-disease was observed, so as to disperse the primary specific lesions, and prevent the occurrence of incurable secondary lesions.

Dr. Ord referred to the difficulties of localization of the lesion causing the various symptoms in this case. With regard to the symptoms specially commented on by Dr. Althaus—exaggeration of the deep reflexes—he should very much like to hear the value of this symptom discussed.

Dr. Drysdale said it was since 1858 that our knowledge of cerebral and spinal syphilis had been gained. He referred to cases of syphilitic lesions of the brain which had come under his notice.

Dr. K. Fowler was interested in the exaggeration of the deep reflexes; he had observed this symptom in neurasthenia from almost any cause. The occurrence of hemiplegia at the period of life mentioned in the paper was not, in his opinion, conclusive of syphilis.

Dr. Clark asked whether headache had been present in this case. He believed that muscular tone exercised an influence on the deep reflexes. He had seen a case of hemiplegia in the course of renal disease in a young girl.

Dr. Althaus said that, in aphasia due to syphilitic lesion, the prognosis was gloomy. The deep reflexes were not exaggerated in the side which was not paralyzed. Cephalagia was not present in this case.—*Quarterly Comp. of Medical Science.*

Personal Observations of the Work of Lawson Tait.

In no way can a clearer insight be gained into the methods and work of the surgeon than by a personal observation of his clinical material. During the past few years Mr. Lawson Tait, of Birmingham, England, has given ample proof by his writings and statistics that his work in abdominal surgery was not only bold and original, but eminently successful. Mr. Tait works in his own private hospital, and his methods have not been so open to public inspection as those of surgeons who operate in large public institutions. Since Mr. Tait began to develop as the leading abdominal surgeon in England, many statements have been made which were intended to cast discredit upon the operator's truthfulness, and upon the correctness of his statistics and methods. It is but just to Mr. Tait to say that he has lived down the injustice of these insinuations against his work, and to-day stands at the head of his profession as a careful, painstaking and skillful surgeon.

Opportunities for the study of Mr. Tait's clinical material are quite limited, but now and then this privilege is accorded to an American surgeon. Recently Dr. A. Vander Veer, of Albany, New York, has enjoyed this privilege. Dr. Vander Veer now gives the profession the results of his personal observations on the work of Mr. Tait, in the *American Journal of Obstetrics*, etc., for July, 1885. We are informed that Mr. Tait is not only an original thinker, but a careful, cautious and great surgeon. "His hospital is a model of all that we could wish regarding quietness, cleanliness, and perfect system, not only in nursing, but in everything. The discipline is the outgrowth of years of hard work and close application, and yet Mr. Tait is scarcely forty years of age. He has described quite fully in his book the necessary preparations incident to an operation, and yet to witness all is a study. Everything is arranged by the nurses after being told of the nature of the operation and the hour of operating. He selects young, intelligent, and prepossessing women, whom he trains for the work he so much enjoys, and they in their desire to learn and please become true enthusiasts in the struggle to save life. He will not have morose, untidy, or homely women as nurses. Mr. Tait enters the room, and almost at a glance tells whether all required instruments are selected. He brings his bag of carefully prepared sponges, and counting them again, tells the assistant nurse their number, and she is held responsible for them. So also in regard to the number of forceps and other instruments." Dr. Vander Veer next relates Mr. Tait's method of preparing the sponges. "New sponges are first put into a large quantity of water with sufficient muriatic acid to make the water taste disagreeably acid. They remain in this mixture until all effervescence has ceased and all the chalk is removed. For this purpose it may be necessary to renew the acid several times. The sponges are afterward carefully and thoroughly washed to make them as clean as possible and free from every rough particle. After being used at an operation, they are first washed free from blood, and then put in a deep jar and covered with soda and water (one pound of soda to twelve sponges). They are left in this about twenty-four hours (or longer if the sponges are very dirty), and then they are washed perfectly free from every trace of soda. This takes several hours' hard work, using hot water, squeezing the sponges in and out of the water and changing the water constantly. Leaving them to soak for a few hours in very hot water greatly assists in the cleansing. When quite clean they are put in a jar of fresh water containing about one per cent. of carbolic acid, and after being in this for twenty-four hours they are squeezed dry and tied up in a white cotton bag, in which they are left hanging from the kitching ceiling (being the driest place in the house) till they are wanted."

The true secret of Mr. Tait's success is found in the very close attention given to minute details. Neatness, system and order prevail throughout his hospital, which, from the description given by Dr. Vander Veer, is a model of comfort and cleanliness. Mr. Tait looks after everything himself, and is so surrounded with trained and disciplined assistants that his work is executed in the most perfect manner. His sole aim has been to secure results, and to reach this end he brings to bear upon his work every prerequisite. The genius of the man flashes out, not only in his remarkable dexterity and skill with the knife, but in the infinite pains and alert watchfulness given to every case. Mr. Tait's success in abdominal surgery is an illustration of what can be achieved by any surgeon who is able to control the surroundings of his patients, and thus raise the practice of the science to the highest plane of art.—*Maryland Med. Jour.*

Multiple Sarcoma of the Skin: Treatment by Hypodermic Injections of Fowler's Solution, with Recovery.

In the *Boston Med. and Surg. Jour.* of June 25, 1885, Dr. Fred. C. Shattuck reports an interesting case of multiple sarcoma occurring in a female, aged 31 years, a dressmaker by trade, who had previous enjoyed good health. She presented herself for treatment on July 26, 1883. Seven months before she had experienced some pain along the lower jaw and had noticed the presence of nodules behind the angles of that bone. Two months latter the nodules appeared over her right shoulder, then on her right arm, next on the left arm, next in the abdominal wall. The appearance of the nodules was preceded by local tenderness and followed by discoloration. Three weeks before admission the patient had noticed her face becoming fuller than normal, and she began to suffer from pain in the cardiac region and shortness of breath on exertion. There had been a diminution of strength but not of flesh.

On admission the body functions were in fairly good order; pulse 120, regular, but rather weak. There was some œdema of the eyelids and face. Scattered throughout the skin of the upper extremities and the body as far as the umbilicus were hundreds of nodules, mostly about the size of a pea. Over the inner aspects of the arms the nodules were discrete, not raised above the surface, slightly tender on pressure; the skin could be wrinkled over them, and was not discolored. On the other hand, over the shoulder, outer aspect of the arms, breasts, upper abdomen and back

—though in the latter situation to a less degree—the nodules were so thickly sown as to form large masses or plates, very hard and but very slightly tender; the skin could not be pinched up or wrinkled, and was markedly erythematous, with slight scaly desquamation of the epidermis. On the legs a very few nodules could be felt, and there was no erythema. The glands at the angles of the jaw were enlarged, but those of the axilla and groin were apparently normal. Thorough examination failed to reveal any material modification of the great viscera. A diagnosis of multiple sarcoma of the skin was made and concurred in by Drs. White, Wigglesworth and Tilden. At first a general tonic treatment was used, but in a few weeks this was substituted by Fowler's solution administered subcutaneously; the author being attracted by the brilliant success of Köbner in using this plan of treatment in a similar case. An injection of four minims of Fowler's solution, diluted with an equal quantity of water, was given by Dr. S. once daily, deep in the thigh. About six weeks later this was increased to six minims. The general health of the patient improved; a few fresh nodules appearing, but the old ones disappearing in much larger numbers. The treatment was persisted in until the middle of March, the patient meanwhile having been taught to administer the injections herself. At this time the first and only abscess that had occurred was opened. A few nodules still remained, but the masses which filled the skin over the breasts, abdomen and the outer side of the upper arm had entirely disappeared. During the past year she has been under observation from time to time without any treatment whatever; has worked steadily at her trade, and is now to all appearances in perfect health.

Dr. S. notes the interesting fact that ten days after the arsenic was stopped the urine was examined for its presence, with a negative result.

Cases of multiple sarcoma are rare, there being only thirty-five to forty recorded in medical literature. The authorities have little to say on the subject, although the course of the disease is well understood, but all agree that the prognosis is unfavorable and the course generally a rapid one. The majority of cases have occurred in the male sex, and most commonly in advanced middle life.

Dr. Shattuck's case is only the second one recorded where recovery took place; Köbner's case, before referred to, being the first. Two years have elapsed since the last report regarding the latter, and, as far as is known, the patient still remains well.

It is to be much regretted that one of the tumors in the case of Dr. S. was not submitted to a careful microscopic examination, as was done by Köbner. Dr. Shattuck states that he wished to do so, but the patient objecting, he put off performing the operation of excision on account of his then having little faith in the curative powers of the arsenic. He thinks, however, that even without the aid of the microscope the diagnosis can not be doubted—the experts were unanimous in their opinions regarding it, while his own experience included two other cases of the affection, both of which had resulted fatally.

The reporter concludes with two questions: Was the cure really attributable to arsenic? If so, would not the drug have acted as well administered in the usual way by the stomach?

These are questions worthy of consideration; and they can only be satisfactorily answered after extended experience with the arsenic treatment of the disease.

The fact that nothing has as yet been discovered which would influence in the least degree the progress and growth of sarcoma gives to these cases an extremely interesting and important bearing.

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Electrical Reactions When the Lesion is in the Spinal Cord or its Membranes.

BY J. T. ESKRIDGE, M. D.

When the normal condition of the spinal nerves and the nutrition of the muscles innervated by them remain unimpaired, the electro-muscular contractility is unchanged, or slightly increased. In transverse lesions of the cord in the mid-dorsal region, the lumbar, from which the legs receive their nerve supply, being healthy, the reactions of the muscles of the lower extremities will show no qualitative or quantitative change, except it be a more ready response to both galvanic and faradic excitation. In spinal meningitis, when the cord is not seriously involved in the diseased process, the electrical condition is similar to that found in inflammation of a motor nerve. In the milder cases, and during the early stage of inflammation of the severer ones, before the anterior roots are encroached upon to a great extent, the irritability of nerve and muscle is increased to the application of both currents. If the function of the nerves be seriously compromised or destroyed, muscular contractility is lessened or abolished. When either the lateral or posterior columns of the cord are affected, as in spastic paraplegia and posterior sclerosis, the electrical excitability of the muscles is increased, and does not diminish until the nutrition of the muscles is impaired by disease of their trophic centres, or from muscular inactivity. In myelitis, the multipolar cells in the anterior cornua and the anterior nerve roots are usually affected, interfering with nutrition of nerve and muscle, giving rise to lessened electro-muscular contractility and reactions of degeneration. In the severer cases of myelitis, where life is prolonged, the destructive inflammation may be so great that the muscles will fail to respond to the strongest galvanic or faradic current. In 1859, under the head of acute, ascending paralysis, Landry described a condition attended by rapid and almost universal paralysis of all the voluntary muscles. The paralysis, beginning in the legs, mounts upward, involving the arms, and sometimes those muscles innervated by the medulla oblongato. *Post-mortem* changes so far discovered in this disease have been slight, but evidences of a diffuse myelitis of a mild form have been found by some. Erb, Westphal, Pelligrino, Levi, and Bernhardt state that no anomaly of electro-muscular excitability has been found even after the disease has existed for weeks. (Buzzard.) Dr. Buzzard met with a case, supposed to be due to syphilis, in which the electrical irritability of the muscles was greatly lessened. The almost normal condition of the muscles in this disease forms a striking exception to that usually found in diffuse inflammations of the cord. Whilst the lesion is diffused throughout the cord, no marked changes have been found at any one portion, which probably accounts for the preservation of electro-muscular contractility. Death takes place, as a rule, only when the vital centres in the floor of the fourth ventricle are involved. There is a group of myopathies in which degenerative lesions are found in the multipolar cells of the anterior cornua of the cord, spinal motor nerves, and their associated muscles. Anterior polio-myelitis (infantile paralysis), progressive muscular atrophy, bulbar paralysis, and possibly lead palsy and diphtheritic paralysis, are examples.

The paralysis in this group may be divided into three classes. In the first class, notably anterior polio-myelitis, the atrophic degenerative lesion begins in the multipolar ganglionic cells in the anterior cornua, and extends to the motor nerves connected with them. The associated muscles of the affected nerves are suddenly paralyzed, and, being separated from their trophic centres, they rapidly atrophy and undergo fatty degeneration. In the second class of the group, as in diphtheritic paralysis, the inflammation is supposed to first attack the nerves, and secondarily the cells in the anterior cornua. In the third, progressive muscular atrophy, for example, according to the theory of Friedreich, the inflammatory process begins in the muscles, extends to nerves, and through these reaches the multipolar motor cells of the cord. In whatever way the trouble begins, the result is the same, viz., atrophic degeneration of the ganglionic motor cells, motor nerves, and their associated muscles. To the reactions found in this group of paralysis, when muscles and nerves are stimulated by the galvanic and faradic currents, I wish now to direct your attention. In these lesions we shall find it specially important to study the electrical irritability of nerve and muscle separately.

Loss of the Electrical Excitability of the Nerves.—In a few days, two or three, after the appearance of the paralysis, a more or less rapid decline in the excitability of the nerves to electrical stimulation takes place. "This is," says Professor Bartholow, "a quantitative and not a qualitative change." The neural excitability continues to lessen, and by the end of the first or second week is lost, when the strongest galvanic or faradic current applied to the nerve fails to excite the slightest muscular contraction. F. Müller found the nerve excitability lost on the fourth day. (Buzzard.) Professor Bartholow states (*Medical Electricity*, p. 135), that "the first change that ensues is in the cathodal closing, which disappears, and can not be induced by any ordinary strength of current; then the anodal closing contraction, and afterward the anodal opening contraction, cease, and finally cathodal closing contractions can be obtained only with the strongest current."

The reactions of degeneration exhibited by the muscles are of great importance, and most typical in this form of paralysis. In the disease we are now studying, viz., atrophic degeneration of the ganglion multipolar cells in the anterior cornua of the cord, a rapid decline in the electro-muscular excitability takes place, but to the faradic current only. F. Müller found, in a case of infantile paralysis, the muscular excitability lost to the faradic current on the fifth and sixth days. "The earliest opportunity which Duchenne had of examining into the electrical condition of the muscles in a case of this kind was the third day. In that instance the right arm was paralzyed. It was not until the fifth day that the electrical excitability of the deltoid was notably enfeebled. On the seventh day, however, it was completely abolished. His experience was, that if the muscles have retained after the seventh or eighth day some amount of contractility to the induced current, they always recover their motility, and the more rapidly the less the excitability has been enfeebled." (Buzzard.) From the fifth to the seventh day in anterior polio-myelitis, muscular excitability begins to decline to the faradic current, and may be totally lost by the end of the second week, and in exceptional cases by the end of the first, or perhaps sooner.

The loss of excitability is permanent in the incurable cases. Where recovery takes place it partially returns, but never reaches normal again when once entirely lost, no matter how perfect the voluntary power of the muscles may become. The character of the muscular reactions to the galvanic current is quite different from that obtained by the faradic. During the first week galvanic excitability declines. In the second it begins to increase and continues to do so for several weeks. After a few weeks the excitability to the galvanic current becomes so marked, that a current scarcely sufficient to move healthy muscles, will give rise to lively contractions of the affected ones. At the same time that the quantitative change in muscular irritability to the galvanic current is noticed, certain qualitative changes may also be observed. In health, muscular contraction excited by the galvanic current of ordinary strength is rapid, and occurs only on closing and breaking the circuit. In this affection, muscular contraction is slow and long maintained. The electro-muscular tonus continues during the entire time the current is passing. Qualitative changes are found in the normal formulæ of muscular reactions, giving rise to reactions of degeneration. Anodal closing contraction gradually increases, and may equal, or even surpass, the cathodal closing contraction. Cathodal opening contraction declines, making a complete revolution in the normal formulæ. (Erb and Bartholow.) Finally, quantitative lessening of muscular irritability, even to the galvanic current, takes place, whilst the qualitative changes, or reactions of degeneration, persist. According to Bartholow, very feeble anodal closing contraction is the last evidence of muscular vitality. It is only in extreme cases that all contractile tissue of muscle disappears, when no strength of current will give rise to the slightest contraction. When the diseased process ceases and recovery begins, the galvanic excitability lessens, and the muscles again respond to the faradic current, but never to a normal degree. The abnormal excitability of the muscles to the galvanic current may be present, whilst the excitability of the nerves to the galvanic and faradic currents is normal. (Bartholow.)

The foregoing description of the nature of the reactions in diseases of the anterior cornua of the cord, applies more especially to the acute form, especially as seen in infantile paralysis. But it must be remembered that the nerve cells in the anterior cornua often undergo chronic degenerative changes. Under such circumstances the irritability of both nerve and muscle gradually lessen alike to the galvanic and faradic current. There is no stage when nerve irritability is lost and that of muscle retained, nor none when muscle irritability is lost to the faradic current and increased to the galvanic. The disease known as progressive muscular atrophy is an example.

Electrical reactions of the paralyzed muscles, when the paralysis is due to lesion in the ganglia at the base of the brain, or in the cortical centres of the brain.—In paralysis of cerebral origin the muscles, as a rule, readily respond when excited by the galvanic or faradic current. As first pointed out by Dr. Todd, in 1847, the cerebral group of paralysis may be divided into three sub-divisions. In the first, those cases of recent origin, those in which the brain near the seat of lesion becomes irritable as the result of inflammation, and we may now add, cases of hemiplegia where the lateral columns of the cord are secondarily affected, the muscular excitability is increased to both currents. In the second, the electro-muscular contractility is normal. In the third, where degenerative lesions have taken place in the motor cells of the cord, or where the muscles have become atrophied from poor nutrition or simply from want of use, the muscular irritability is below the normal.

In supposed hysterical paralysis, so long as the muscular irritability is lessened to the faradic current, a diagnosis of pure hysteria can never be safely arrived at. (Buzzard.)

"*Brief.*"—By including disease of the multipolar ganglionic cells in the anterior cornua of the cord in the list of peripheral lesions, and by dividing broadly the lesions causing paralysis into central and peripheral, we may present in a brief space the behavior of muscles when excited by electricity. When the lesion is peripheral, and has passed the acute stage, the muscular excitability is lessened or abolished to the faradic current, and diminished to the galvanic. The peripheral lesion may be situated in the ganglion cells in the anterior cornua of the cord, as in anterior polio-myelitis (infantile paralysis); or at the point where the nerves penetrate the membranes of the cord, as in syphilis; or at the vertebræ, where the nerves pass encased in bone, as in disease of the spinal column; or, in the course of the nerves, when the injury may be caused by blows, exposure to cold or gunshot wounds; or finally in the muscles themselves, as in contusions, and in progressive muscular atrophy, if Friedreich, who regards this disease as beginning primarily in the muscles, be correct in his theory. When the lesion causing paralysis is central, in the brain, or in other portions of the cord than the anterior cornua, leaving the latter in a normal condition, the muscular excitability is normal or slightly increased, as a rule. I am aware that in attempting to embrace the gist of the subject of electro-diagnosis in such a brief space that I have done, is at the sacrifice of some accuracy. Such *résumés* aid the mind in retaining important facts until the whole subject is made familiar to one, but if taken as literally true, this one, at least, is open to some of the criticisms which Marshall Hall's conclusions in regard to the use of electricity in determining the cause of paralysis, received from Drs. Pereira, Copeland, and Todd.

I feel that I can not do better than add the conclusions of Bartholow, found at the end of his chapter on electro-diagnosis:

"The condition of paralyzed muscles, when affected by causes within themselves, may be ascertained by the application of galvanism and faradism. Both currents are necessary, and the reactions obtained are indispensable to diagnosis of the condition of paralyzed muscles. The reactions of degeneration afford precise indications of the state of the muscles in certain forms of paralysis.

"The motor nerves also react in a definite way to electrical stimulation, and they must be examined separately from the muscular to arrive at an exact knowledge of their condition.

"The reactions of degeneration afford us very important diagnostic indications as to the seat of spinal lesions, and separate broadly the so-called 'spinal' from the 'cerebral' paralysis."—*Medical Electricity, Bartholow.*

Malt as Food.

DR. J. MILNER FOTHERGILL thus writes in the *Lancet*, April 4, 1885: Malt as food has a great future before it. In the process of malting (which is a rapid germination) a distinct change is brought about in the seed. By the action of the diastase the insoluble starch is converted into soluble dextrine, which goes sweet into the mouth, so near maltose is it. The malt-combings, which are too rich in albuminoids for the brewer's purposes, are useful when malt is looked at as a food. Malt contains dextrine (some diastase), soluble albuminoids and phosphates, and when ground is an admirable food, while it is not expensive. Its taste is pleasant. It can be made into a pudding with an egg and some milk, and as such is palatable. It can be made a constituent of a milk pudding with advantage. When the brewer mashes his malt with hot water, the diastase remaining in the malt converts the dextrine into maltose, which the yeast (next added) breaks up into alcohol and carbonic acid gas. The best white malt is not heated to more than 190°, as the diastase is acted upon injuriously by a heat above that point. Maltose is a sugar which does not readily undergo the acetous fermentation, and, therefore, as Dr. Mitchell Bruce points out in his "Materia Medica and Therapeutics," "will not give rise to acidity and dyspepsia." This is a great matter, as the cane sugar the cook adds to stewed fruit and milk puddings readily undergoes the acetous fermentation in many stomachs . The lævulose sugar of fruit, like maltose, readily undergoes the alcoholic but not the acetous fermentation. Maltose being less powerfully sweet than cane sugar, a greater quantity is necessary to sweeten the pudding. If the raw starch, semolina, sago, or tapioca, be first put in the dish by itself, and placed in the oven for an hour (taking care not to have it burnt by the oven being too hot), not only are the starch-cells cracked, but a certain conversion of the starch into dextrine takes place. If to this be then added an equal quantity of ground malt and some hot milk poured on, and the dish be allowed to stand a few minutes before being put into the oven again, the diastase of the malt acts upon the farina and converts it into dextrine and maltose. Dextrine and maltose being soluble, the pudding is very thin. Such a pudding is admirably adapted for invalids and dyspeptics, as requiring scarcely any digestion in the body. For those with whom ordinary milk puddings produce acidity, such a pudding is specially suitable. Ground malt may be added to fresh milk, and forms an admirable food in cases of acute disease. Baked flour perhaps goes better with meat broths, to which it gives a high food value. (Well-baked flour requires but a touch of saliva to render it soluble, and, added to meat broths and gravy soups, renders them very nutritive.) Malt, being sweet, goes better with milk, or apple-water, or tamarind-water, or lemonade, and gives us a food which, being all but independent of the digestive act, can be most usefully employed in the sick-room. Beef-tea (which alone is scarcely a food) and milk-and-seltzer water pall upon the palate of the sick person, who craves variety just as do healthy persons. The adoption of ground malt as a food will solve for us one or two knotty questions connected with feeding people when the digestive power is feeble. Drinks like lemonade, made with malt instead of cane sugar, would not only not go sour in the mouth and stomach, but would contain some phosphates and soluble albuminoids, and so form admirable beverages in pyrexial states. The many malt extracts now in the market are well adapted for such end.

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ULCERATION OF THE BOWELS IN YOUNG INFANTS.—The author uses as diet, where milk is not borne, even with lime water, one part of cream, two parts of barley water, two parts of whey, with the addition, from time to time, of white of egg mixed in water with beef essence. When the secretions are mainly mocu-purulent, small doses of castor oil (8 min.) with tincture of opium. After this character is lost and they are simply thin watery passages—astringents are indicated. He emphasizes the beneficial results obtained during convalescence from the administration of the lacto-phosphate of lime and iron. Of this he gives 10 min. of the syrup three times a day.—*Practitioner.*

Microscopy.

A Physician's Microscope.—Physicians frequently consult us with reference to the kind of a microscope they should purchase for professional purposes; and we have thought, therefore, that we would express our views in regard to the subject in an article for this number of the Medical News. We will first premise what we have to say by stating that nearly all the makers of microscopes manufacture a stand with two third-class objectives, an inch and a quarter inch, a mirror, fine and coarse adjustment, an eyepiece, a box with a drawer, etc., which they recommend to medical men and others for ordinary work. The price asked for such an instrument ranges from $35 to $75. The features which affect the price, and cause it to vary in instruments of the same class and scope of power, are the general finish, the length and circumference of the tube, presence or absence of a drawtube, the construction of the adjustments—with some instruments the coarse adjustment, instead of being by rack and pinion, is effected by sliding the tube up and down by the hand, and we must say that such a method of approximating a focus is more satisfactory than many would suppose; in fact, not a few seem to prefer it—whether the entire instrument is made of brass, or the base or foot is constructed of cast-iron, etc. There is but little difference in the quality of the objectives in any of these instruments. If we select from the microscopes, ready made, one that would answer the purposes of a physician—that is, would exhibit tolerably satisfactorily blood and pus corpuscles, urinary deposits, etc.—we would choose an instrument having rack and pinion for coarse adjustment, it being more convenient for that purpose than sliding the tube with the hand; then we would see to it that the tube, if there was not a drawtube, should be full ten inches long, and be full size in circumference; that it had both a plane and concave mirror; that the stage was thin, permitting the mirror to throw very oblique rays of light against the object to be examined, after the mechanism was removed from beneath the stage constructed for the employment of accessory apparatus. Such an instrument, of those which are found already constructed, will cost from $45 to $50. If the stand is made entirely of brass, the price would probably be $60. But if the base is composed of iron, nicely japanned, the microscope looks nearly as well as if made entirely of brass.

But if a cost of twenty-five or thirty dollars additional to the price of one of those instruments which are constructed for physicians and amateurs, would not be a matter of importance with us, after purchashing a stand, like the Ideal of the Gundlach Optical Co., which has the features we have mentioned that we would require in a stand, and which can be purchased for about $25 (we do not recollect the exact price), we would prefer selecting ourself the objectives, etc., for it. An inch and a quarter inch objective are the powers that almost, without exception, accompany the ready made physician's microscope, oftentimes denominated the Student's Microscope. If the limit is to two powers, we will readily admit that their selection is the best, but we would advise, if it can possibly be afforded, to obtain at least three powers, if not four. We have some fifty or sixty objectives, but, of course, there is no practical use for so many. With four good lenses there is nothing which a microscope can bring before the vision which can not be viewed in a satisfactory manner. Besides the three or four objectives, we would want at least two eyepieces, A and B. There is seldom any need for a C eyepiece. It magnifies the image of the object double that of the A eyepiece, but at the same time it so darkens the image of the object viewed, that the use of it is unsatisfactory, unless by some accessory apparatus, as a bull's-eye condenser, the force of the light is greatly increased.

In choosing three objectives for our stand, we would select the following powers: one inch and a half, half-inch, and one-sixth inch. If we concluded to purchase four objectives, our selections would be a one inch and a half, half an inch, one-fifth inch, and a one-tenth or a one-twelfth inch. A very favorite power with us is a three-tenths. We employ it more than any other power above two-thirds of an inch; and if we had to limit ourself to a few lenses, we would sacrifice it with great regret. Indeed, in consequence of our experience with our three-tenths, we would be greatly tempted, in our case, to select the four objectives as follows: one and a half inch, two-thirds of an inch, three-tenths of an inch, and one-tenth of an inch.

A favorite power with not a few microscopists is a four-tenths. Its power is a little more than that of a half-inch—

it being a five-tenths. But that little difference permits it to be made more easily of a high angle of aperture.

An interesting matter is the cost of these objectives. The only price-list we have at hand at this moment is Beck's, but, unfortunately, on turning to it, we find that the list of objectives, of the third-class, made by that firm, does not include in it some of the powers we have mentioned. We can only approximate, therefore, the cost, by quoting the prices of such as do appear upon the list. A two-inch is quoted at $7.50: one-inch, $10; half-inch, $12; one-fourth, $12; one-sixth, $18; one-eighth, $20. Beck's third-class objectives are styled the "New National Series," and are supplied to his highest-priced stands, unless otherwise ordered. They are all carefully corrected, and entirely achromatic. The quarter-inch glass exhibits the striæ upon pleurosigma angulatum, which, twenty-five years ago, was the test for a quarter of the first class. But Gundlach's objectives that are furnished to physicians' microscopes are decidedly superior and are much more finely mounted. The prices of Beck's second-class series of objectives range as follows: two-inch, $12; two-thirds inch, $16; half-inch, $16; quarter-inch, $20; one-sixth, $30. The prices of first-class objectives, of all makers, are very high. But while the price is great, it oftentimes requires an expert to distinguish between the quality of them and that of the cheaper grades. For all the practical work of a physician, botanist, mineralogist, chemist, etc., well-corrected third-class glasses are very satisfactory in their performances.

A beginner with the microscope will be astonished how little he has need of high powers. Four-fifths of the objects which a student of the natural sciences has occasion to examine, require no higher power than a two-thirds or a half-inch. The first with an A eyepiece magnifies about sixty diameters, with a B eyepiece about one hundred diameters. Sixty diameters is equivalent to 3,600 times; one hundred diameters to 10,000 times. Thus it will be perceived how great is the enlargement of even what is styled a low power. A half-inch objective magnifies with an A eyepiece one hundred diameters; with a B eyepiece about 150 diameters. With a B eyepiece about the same enlargement is obtained with a two-thirds objective that follows upon a half-inch with an A eyepiece. It must not be supposed, however, that because a lower power is made to magnify as much as a higher power by means of a stronger eyepiece, that it is as efficient; for, as we have stated in previous articles, the office of the eyepiece of a compound microscope is to magnify the image of the object and not the object itself. The eyepieces, therefore, merely makes larger and plainer what the objective has brought into view.

We will conclude by saying that when a purchaser of a microscope does not feel able to purchase a third objective, he will add to the efficiency of the instrument by buying a second eyepiece. We will also add that the third class objectives of American and English makers are vastly superior to the French triplets which are found in all optical instrument stores and are supplied with the cheap French microscopes. These triplets are worthless things. Those who invest in them will find them to be miserable frauds.

Gleanings.

THE BEST PALLIATIVE TREATMENT OF PROLAPSUS UTERI ET VAGINÆ IN OLD WOMEN.—Professor Breisky details in this paper his experience with various forms of pessaries in the treatment of prolapsus. The objections he makes to the majority of them are familiar enough to us in this country. Being foreign bodies in the vagina, they act as irritants. If large enough to be at all effective—and they must be large in order to resist pressure from above—it is only a question of time when, from overdistention of the vagina, they will become too small, and must needs be replaced by still larger. To determine the instrument which, from its form, is likely to prove most effective, the question must be answered: By what mechanism is the pessary retained in the vagina? The answer is: The pessary must be of sufficient size to so distend the vagina as to rest on the pelvic diaphragm (the levator ani). His experience has led him to reject all those pessaries which have an oval or round shape, as also those typified by Zwanck's instrument. He recommends the substitution of an egg-shaped, smoothly-polished instrument, and says that in his practice such an instrument has yielded him the happiest results. The objections brought against this instrument are: (1) It prevents coitus. (2) It is an obstacle to the escape of the menstrual blood. (3) It presses on the bladder and rectum. (4) The material from which it is constructed will gradually become rough. (5) It is difficult to remove. To answer these objections categorically: Since the instrument is only intended for the use in old women, the first two objections fall to the ground, to say nothing of the fact that these same objections will apply to other forms of instrument. The egg pessary will not press on bladder and rectum more than any other form, and since the instrument can readily be constructed of hard rubber, objections 3 and 4 are unfounded. The pessary may always be removed by a properly constructed forceps. Experience has further taught him that there should be no groove or hole in the instrument. The pessary should lie so closely in contact with the vaginal walls as to prevent access of air, and thus danger of erosion and catarrhal inflammation is lessened. Indeed, he questions if erosions will not heal more quickly with the pessary in position (if it be properly adapted), provided the base of the erosion be properly disinfected before the introduction of the pessary. It is also his opinion that through the use of this pessary a certain amount of tone is restored to the vaginal walls and strength added to the levator ani. While wearing this instrument, the patient is spared the trouble of taking vaginal injections, and its removal is only called for every three to six months, and then perhaps a smaller size may prove efficient. In recent cases of prolapsus, and in cases where decensus is not as yet a marked factor, Breisky recommends the application of such agents as tend to restore tone to the vagina before using the pessary. In the concluding pages of his paper, he describes the use of large cotton tampons saturated in some astringent, and calls attention to an ingenious porte-tampon he has devised, by means of which the patient may treat herself. (This method and a similar instrument have long been known in this country.) Above any method, however, and above all other instruments, Breisky places the egg pessary above described.—*American Journal of Obstetrics.*

THE COMMUNICABILITY OF PHTHISIS.—Dr. W. H. Webb, of this city, recently read a thoughtful and valuable paper before the College of Physicians upon the contagiousness of phthisis. The belief in the communicability of this disease, which has been always more or less prevalent, received fresh impetus when Koch announced the discovery of the bacillus of tubercle. Since then numbers of cases have been adduced in support of and in opposition to this view, but the weight of clinical evidence, as well as of scientific research is confirmative to its truth.

Dr Webb's scholarly investigations show that medical knowledge in relation to this important subject has been steadily progressive, and that what now seem to be proven facts, have been anticipated by flashes of truth in almost every epoch of medical history. The discovery of the tubercle-bacillus was not drawn from the inspirations of genius, but from the patient shaping of clinical facts gathered from the time of the Father of Medicine until the day that Koch discovered a peculiar microbe in tuberculous sputa. As a result of the researches and experiments made by Koch, he declared his belief that "Tuberculosis is a specific infectious disease, caused by a specific micro-organism—the bacillus tuberculosis—which constitutes, in fact, the true tubercle virus." This statement is one of the most far-reaching in its import in the history of medicine.

Theoretical objections were immediately raised against its acceptance, but the tubercle-bacillus is an undeniable fact ; all, with the same facilities, may see what Koch and others have seen. It is the one thing tangible, describable, known by its peculiarities among entities as readily as one individual is known from another. To doubt its existence in tuberculosis, is to doubt the utility of scientific medical research, and to abandon further progress to the unstable dreams of theorists. The sputa of the phthisical contain these germs ; the air they exhale is loaded with the mor their spores, and their introduction into the system of animals will always produce tuberculosis, while nothing else will. Dr. Webb on several occasions examined specimens of air taken from crowded churches and theaters, and invariably found numbers of the tubercle-bacilli present. Furthermore, clinical observations prove conclusively, that healthy individuals, living in an atmosphere contaminated by the phthisical will contract this disease, and not any other which might be due to a lowered vitality, from breathing vitiated air.—*Medical Bulletin.*

THE CARE OF THE CORD OF THE NEW-BORN.—*Archiv f. Gynäkol*).—Proper attention to the cord is necessary to prevent, (1) Hemorrhage and (2) inflammation with its consequences. In this paper the rules followed at the Leipzig Clinic are stated. The essential points are in regard to the best material for ligature of the cord, and in regard to the best after-treatment. As for the ligature, linen thread and silk have been rejected because of their liability to slip with the shrinkage of the cord. From experiments made, in particular by Budin, and corroborated by the authors of this paper, the best ligature material appears to be thin rubber. On account of its contractility the danger of slipping is small, and its use in many cases has shown that, if applied double, hemorrhage is absolutely prevented. The method of ligating recommended, is the following: Throw a loop around the funis, pass the free ends of the rubber band through the loop, and then, passing one free end around the funis in one direction and the other end in the other, cross them and tie. Such a ligature is easily applied, remains in place as perfectly at the end of thirty-six hours as when first applied, and is a perfect hemostatic. As for the after-treatment of the cord, rejecting the methods which require the use of powders of various kinds, and unequivocally condemning the applications of oil or fat to the cord, the authors urge the adoption of the following as being the simplest and safest method: As soon as the child has been bathed, simply wrap the cord in cotton wool, lay it over the left abdominal wall, and wrap the abdominal bandage around it. Each morning, after the bath, renew the cotton, having first gently dried the cord. Under this mangement, mummification goes on naturally and rapidly, and since its uniform adoption in the Leipzig Clinic, not a single case of disease of the cord has been seen.—*American Journal of Obstetrics.*

NITRO-GLYCERIN IN CHRONIC INTERSTITIAL NEPHRITIS.—Rossbach ("*Berlin, klin. Woch*"; "*Ctrlbl. f. d. ges. Therap.*") commends this remedy because of its favorable action in cases of contracted kidney attended with cardiac hypertrophy. He believes that many of the distressing symptoms of chronic interstitial nephritis are directly due to the increased blood pressure. Now, as nitro-glycerin has a direct tendency to lower this pressure, it follows that it is a most valuable drug in this disease. His method of preparation is as follows: Dissolve about a grain and two-thirds of nitroglycerin in six ounces of sulphuric ether, and then add two parts of powdered chocolate and one part of gum arabic. Allow the ether to evaporate, and add sufficient water to form a thick paste, which may be poured out into molds. Each troche will contain about a sixtieth of a grain of nitro-glycerin. The dose is from one one hundred and twentieth to one sixtieth of a grain every hour. The patient may complain of headache after the first few doses, but tolerance is soon secured.—*N. Y. Med. Jour.*

Nitric Acid Test for Albumen.—Allard Memminger proposes a new modification of the nitric acid test for albumen in the urine. Comparing the action of the nitric acid with that of picric acid and sodium tungstate, the idea occurred to him that the failure of nitric acid to develop a precipitate of albumen which was thrown down by the more delicate tests occurred only in the latent form of albuminuria. After various experiments he found that if, after heating (boiling) the urine and nitric acid together, he plunged the test-tube into very cold water, a precipitate of albumen was produced which corresponded very closely with that caused by treating the same amount of urine with picric acid. He is disposed to believe that when nitric acid and heat used in the ordinary way fail to show a precipitate, which more delicate reagents or the sudden cooling of the urine boiled with nitric acid does throw down, this precipitate is due to functional disturbance, not to organic change in the kidneys. —*N. Y. Med. Jour.*

Corrosive Sublimate in Venereal Warts.—A correspondent writes us that, having been advised to apply a solution of one grain to the ounce of corrosive sublimate, to a case of venereal warts which came under his care, he found after the application through a mistake a solution of ten grains to the ounce was applied. The result was so satisfactory that he determined to still further increase the strength, and on his next case he made the solution of twenty grains to the ounce with excellent results. He now also applies this solution to chancres and chancroids, and also to indolent ulcers of the uterus, and is highly satisfied with the results. He has never witnessed the slightest symptoms of mercurial poisoning from this treatment, and does not believe that the application of corrosive sublimate in this strength is liable to be followed by absorption.—*Med. Age.*

A correspondent in the *London Lancet* writes that any one may be cured of stammering by simply making an audible note in expiration before each word.

Book Notices

COMPARATIVE ANATOMY AND PHYSIOLOGY. By F. Jeffrey Bell, M. A., Professor of Comparative Anatomy at King's College. Illustrated with 229 Engravings. 18mo. Pp. 555. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price, $2.00.

This is a most interesting and valuable elementary work upon comparative anatomy, which should be in the hands of every medical student and physician who is not already versed upon the subject and has made it a special study. A knowledge of human anatomy and physiology is not enough to give one a clear and comprehensive understanding of vital phenomena in an organized being. They must be studied in the lower animals as well. The aeration of the blood and the circulation of it will be far better appreciated if, after they have been studied in the human being and in mammalia generally, the investigation is carried to the respiration and circulation of fishes, reptiles, insects, plants, etc.

In a study to which a work of this kind is devoted, we have to do with *life*, which is a force of which no one has any knowledge. Living matter, whether it be animal or vegetable, has the characteristic that it has the power of continuing to exist by taking into (*nutrition*), and making part of itself (*assimilation*), other living or even not-living matter. Nutrition and assimilation lead to *growth*, and this growth is succeeded by a stage in which additional material obtained is used for the purposes of *reproduction*. But all life, by law of nature, *must die*. This law is inflexible, and applies to life in whatever organization of matter it may appear. It runs its course in the leaf of the tree, in the worm that drags itself along upon the ground, in the bird that soars aloft in the air, in man who thinks and is capable of the highest aspirations. Whatever may be the form of the matter it vivifies, *death* is the goal to which it tends. When life has departed from any matter, it becomes *dead matter*, and, from this dead matter, living material can never, by any process now known to us, be produced; for, so far as we know, living matter can only proceed from other living matter.

It is a remarkable and an interesting fact that, in every organization of matter, although the matter of the organization is constantly changing, through new material supplying the place of that which has become effete and is eliminated, yet an inflexible law requires that, in a definite time, the *organization itself must die.* Reproduction of a new organization takes place during the life of one from it, but the changing of the matter constituting one—for that is done in all of them—will not enable it to continue its life. Not its matter only must be constantly dying from the time life enters it, but it itself must finally die.

Although we only know life as a force, yet we have succeeded, by our investigations, in learning some of the conditions connected with it; and, among others, we have ascertained that four chemical elements are always found in any organization vivified by life. The four chemical elements, which are always present, are oxygen, hydrogen, nitrogen and carbon. These are elements which, by their combination, constitute *protoplasm.* Prof. Bell is of the opinion that small quantities of sulphur and phosphorus are associated with them.

Of course, our author points out and explains all the characteristics that are had in common by all living organized bodies. In the first chapters of his work *protoplasm* and *protagon* are described, and also other organized elements. Then commencing with the lowest forms of animal life, the ameba, he discusses the general structure of animals. It will be noticed in his work, that, as he says, he writes about organs rather than about groups of animals.

We know of no work so well adapted, as is this one, to afford medical students and physicians a very satisfactory acquaintance with comparative anatomy without taxing their time with tedious technical descriptions and discussions upon unsettled questions.

DISEASES OF THE TONGUE. By Henry T. Butlin, F. R. C. S., Assistant Surgeon and Demonstrator of Practical Surgery and Diseases of the Larynx, St. Bartholomew's Hospital, etc. Illustrated with Chromo-Lithographs and Engravings. 18mo. Pp. 451. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $3.50.

This work is illustrated by quite a number of colored plates exhibiting the local affections of the tongue as nearly as possible as they appear to the eye in actual cases. Of course, such plates, of which there is a considerable number, make it more expensive than it otherwise would be.

This is the first work, according to our recollection at the present time, that we have ever met with that is devoted exclusively to the diseases of the tongue. The text-books upon surgery describe more or less affections of this unruly organ, as it has been denominated; but as its disorders are never by themselves made a specialty in practice, it is certainly seldom, if they ever were before in the English language, treated separately by a medical writer. But as French and German medical literature abounds more than the English in works upon special subjects, it is not improbable that the diseases of the tongue have in those languages not a few writers upon them alone.

In preparing this work, the author made use of the opportunities which the large outdoor patient practice of St. Bartholomew's Hospital afforded him. From our own knowledge of dispensary practice, we can easily imagine that the outdoor patients of an institution in a great city, like London, would afford very superior facilities for studying such affections as those of the tongue; far more than among any other class, we would expect them to be prevalent among the poor of such a city who seek relief at its public institutions. Surgeon Butlin first took notes of the cases coming under his observation without any intention of publishing them, but afterward their apparent value induced him to give his experience to the profession in the form of a work which we now have before us.

The work contains twenty-four chapters, with an appendix, in which are treated accidents to the tongue, congenital defects, discoloration, inflammation of the substance, eruptions, indentations and fissures, ulcers, patches and plaques, nodes and nodules, smooth patches and smooth tongues, atrophy, hypertrophy, cysts, innocent tumors, cancer, treatment of cancer, causes of death after removal, operations upon the organ and treatment of them, parasitic diseases, etc.

With such a work, embodying the experience of an accurate observer, there is afforded an opportunity for speedy reference, and for obtaining full and reliable information. A work like the present one can be more satisfactorily consulted in regard to the affections of which it treats, than can be the pages of a work upon general surgery, in regard to the same diseases, for the former one sets forth the personal experience of the author, while the latter is but a compilation from many sources and unreliable.

THE TECHNOLOGY OF BACTERIA INVESTIGATIONS. Explicit Directions for the Study of Bacteria, Their Culture, Staining, Mounting, etc., According to the Methods Employed by the Most Eminent Investigators. By Charles S. Dolley, M.D. 12mo. Pp. 263. Boston: S. L. Cassino & Co. Price, $2.00.

In our last issue we had only space to announce the publication of this work.

There is nothing as yet in English, or in fact, in any language, that gives the physician and investigator the methods employed by such men as Pasteur, Koch, Erlich, Weigertz, etc., and it is believed a book giving concise directions where to look for and how to study the different forms, especially those having a pathogenic significance, will be gladly welcomed, especially at this time, when there is such a widespread interest in the etiology of certain infectious diseases. It is also hoped that the publication of this work will stimulate original work among American investigators in this department, as heretofore by far the greater amount of work has been done by Europeans. The following is a summary of the work:

GENERAL INTRODUCTORY REMARKS.

Chapter I. *Microscopical Preparations.*—(1) Study of living forms; (2) Study of fixed forms—(*a*) without staining, (*b*) by staining; (3) Methods of making preparations ot the Bacilli of Anthrax, Glanders, Hog Cholera, Lepra, Septicæmia, Tuberculosis, Typhoid Fever, the Micrococci of Gonorrhœa, Infectious Myelitis, Pneumonia, Rabies, etc., according to the methods of Weigertz, Kaatzer, Koch, Babes, Baumgarten, Erlich, Flugge, Rindfleish, Gibbes, Fränkals, etc.

Chapter II. *Study of Bacteria by Culture.*—(1) Culture vessels; (2) Culture media; (3) Introduction of media into culture vessels; (4) Showing Microbes in culture media; (5) Carrying on the culture.

Chapter III. *Vaccination Method of Studying Bacteria.*—

Bacillus Anthracis, Chicken Cholera, Bacillus of Tuberculosis.

Chapter IV. *Study of Bacteria by Biological Analysis.*—Engelmann's method; Metschnikoff's method.

Chapter V. *Formulæ*, etc.

HISTORY OF THE MANUFACTURE OF IRON IN ALL AGES, AND PARTICULARLY IN THE UNITED STATES FOR THREE HUNDRED YEARS, FROM 1585 TO 1885. By James M. Swank, Secretary of the American Iron and Steel Association, Member of the Historical Society of Pennsylvania. Ferrum comminuit et domat omnia.—Daniel ii. 40. 8vo. Pp. 428. Philadelphia: Published by the Author.

The very brief space to which we are limited in notices of books, will not permit us in noticing such a work as the one before us, to do it the justice it merits. In fact, though we were not limited in space, and could appropriate as many pages as we desired, we would not feel ourselves competent to write a review of it. For such a duty some one more learned in metallurgy than we is required.

The book before us exhibits, on the part of the author, learning, research and industry. In the first chapter we are taken back to the earliest ages of antiquity, and are informed that Tubal Cain, born in the seventh generation from Adam, as shown in the 4th chapter of Genesis, "was an instructor of every artificer in brass and iron;" and we are also told that in the sepulchres at Thebes and Memphis, cities of such great antiquity that their origin is lost, butchers are represented as using tools which antiquarians decide to have been made of iron and steel. Iron sickles, too, it is stated, are also pictured in the tombs at Memphis, and at Thebes various articles of iron have been found, which are preserved by the New York Historical Society, and are probably three thousand years old. We are also told that iron was known to the Chaldeans, the Babylonians and the Assyrians, who were cotemporaries of the early Egyptians; that iron ornaments have been found in Chaldean ruins, and that Chaldean inscriptions show that iron was known to the most ancient inhabitants of Mesopotomia; that in the ruins of Nineveh, the antiquarian Lazard found many articles of iron and inscriptions referring to its use.

But however interesting it might be to our readers for us to give an outline of the history of iron, the most serviceable of all metals, from the earliest times to the present, yet we must forego doing so, and hasten on with our remarks. The author, after describing the ancient processes in the manufacture of iron, describes the medieval and early modern processes of its manufacture He then gives an interesting account of the first attempt by Europeans to manufacture iron in the United States. From the time that iron began to be manufactured in this country, the industry has constantly increased. We are surprised to learn, from the work, in how many States it is made. Of course, Pennsylvania leads, but we did not know before that Ohio is second on the list, and to her is entitled the honor of having had established within her boundaries the first successful works in the United States for the manufacture of "*crucible steel of the best quality.*" A Dr. Garrard was the inspiration of the enterprise in works located upon the Miami Canal, in Cincinnati, built in 1832. The author states that Dr. Garrard is still living, at an advanced age, at Fallston, Beaver County, Pa. This steel was used for saws, springs, axes, reaper knives, files, and tools generally.

There are very many subjects of interest in this most interesting work, and we hope that as many of our readers as can will procure a copy of it and read it. We can assure them that, if they will place a copy of it upon their library shelves, they will regard it as among their most interesting works. As we have already remarked, the work affords evidence that the author, Mr. James M. Swank, is a gentleman of learning and ability, who, in preparing this work, has exhibited great research and industry.

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TREATMENT OF LEG ULCERS.—Dr. Roberts has recently had excellent results in chronic ulcers of the legs, after sprinkling powdered chloride of sodium thickly over the surface of the ulcer, once every three or four days, and dressing the sores twice daily with corrosive sublimate ointment. The ointment contains half a grain of the mercuric chloride to the ounce of cerate. Chronic ulcers with callous edges are often most expeditiously treated by the surgeon excising them by means of an elliptical incision, and closing the wound with sutures.—*Polyclinic.*

Editorial.

THE INTERNATIONAL MEDICAL CONGRESS.—We have not had much to say in regard to the dissatisfaction on the part of many which has resulted upon the inviting, by the AMERICAN MEDICAL ASSOCIATION, of the *International Medical Congress* to meet at Washington, in this country, in 1887. We have felt disposed to let other journalists do the fighting in the matter, while we pursued the even tenor of our way.

But as the discussions which have arisen have become very great indeed, resulting in an abusive warfare among the contestants, we feel under the necessity of taking some notice of it, that we may not be lacking in the way of keeping our readers posted in the news of the profession. The most fiery in their onslaughts, and the most abusive in their language, are the Eastern medical journals.

The *New York Medical Journal*, in a late issue, in speaking of the action of the AMERICAN MEDICAL ASSOCIATION, thus expresses its dissatisfaction in regard to the selection of officers for the Congress: "And all this disgrace is the logical outcome of the false and artificial issues which, for the past three years, have enabled men to use every representative of the profession, to masquerade as its leaders through the medium of that degenerate and utterly ridiculous concern, the AMERICAN MEDICAL ASSOCIATION. That organization long ago ceased to work for the benefit of the profession, and for a number of years past its annual meetings have been little more than scenes of the most shameless intrigue and demagogism."

Says the *Philadelphia Medical News* in its issue of July 18: "The men who are engaged in original research, and who are best known as those who are contributing to the honor and dignity of American Medicine by their writings and teachings for the past ten years, have become dissatisfied with the tone of the AMERICAN MEDICAL ASSOCIATION and have ceased to attend its meetings."

This quotation is the mildest of many recent expressions in regard to the American Medical Association.

We will now give our readers a very brief history of the trouble, culled from the most reliable sources, and, in doing so, we will state nothing but what is true without any bias.

At the annual meeting of the AMERICAN MEDICAL ASSO-

CIATION, held at Washington, in May, 1884, Dr. Austin Flint, President, recommended inviting the *Triennial International Medical Congress* to hold its meeting, in 1887, in this country. The recommendation was referred to a Committee, which subsequently reported a series of resolutions endorsing it, and providing for the appointment of a Committee of seven (afterward made eight), to proceed to the meeting in Copenhagen and present the invitation in behalf of the profession of the United States, and if the invitation was accepted, the same Committee was authorized to continue its existence, add to its numbers and make all necessary arrangements for the meeting and organization of the *Congress.* The Committee was appointed, and was composed of Austin Flint, Sr., New York; I. Minis Hays, Philadelphia; L. A. Sayre, New York; C. Johnson, Baltimore; George Engelman, St. Louis; J. M. Browne, U. S. N.; J. S. Billings, U. S. A.; H. F. Campbell, Georgia. They attended the meeting at Copenhagen, their expenses being paid by the Association, and presented the invitation, which was accepted. After their return, the Committee began their work of organization, their first act being to enlarge their number, as they had been empowered to do, in order that they might have a more nationally representative character.

It was here, upon the threshold of the most important part of their work, according to the *Journal of the Association,* that a majority of the original Committee practically ignored all allegiance to the National Association, and "assuming an entirely independent attitude, at once placed in the front of their ranks not only one who was well known to have repudiated the National Code of Ethics and to occupy a position directly hostile to the National Association and the State Associations throughout the country, but urged the addition of another still more obnoxious, until their Chairman, Dr. Flint, felt compelled to tender his resignation as a member of the Committee, and was only induced to recall it, by an agreement that the objectionable additions should not be further urged."

Having enlarged their number by addition of about seventeen gentlemen, chiefly from New York, Philadelphia and Washington, with two from Boston, two from Chicago, one each from Cincinnati and St. Louis, they held a meeting of the enlarged Committee in Washington, September 29, 1884, at which there were present fifteen of the whole number constituting the Committee. At this meeting a plan of organization for the *Congress* was presented and adopted; also a system of rules taken from those governing the previous meetings of the *Congress* in Europe.

But the rule providing for the American membership of the *Congress* proposed no representatives or delegates from either national or State medical organizations; "they were to consist simply of such members of the profession as the Committee of Organization might graciously invite." And it was not until after a warm discussion that a substitute was adopted, making the American membership to consist of delegates regularly elected by the AMERICAN MEDICAL ASSOCIATION, the several State and local societies, and the several national organizations of specialists. Centralization seemed to be the object of a large majority of the Committee, and the adoption of this substitute was the only action in the direction of nationality. The rule adopted regarding permanent officers of the Committee provided that all the general officers of the Committee should also be chosen for the same official positions in the preliminary organization of the Congress; and that the Executive Committee of the Committee on Organization should also be the Executive Committee of the Congress. Under these rules, when the permanent officers of the Committee had been elected, and the Chairman of the several sections named, it was found that the members of the Committee had largely elected themselves to fill all the positions in the Congress. For instance, eight out of the twenty-five members of the Committee had been placed in position for general officers of the Congress; four others for members of the Executive Committee; and still four others for Chairmen of Sections—making sixteen of their own number appointed to as many of the chief official positions of the Congress. A few members earnestly protested against this wholesale self-appointment to office; but the uniform reply was that no one must be selected who was not well known both in Europe and America. According to their own exalted estimation of themselves, no one but themselves and a couple of dozen of their friends in a few of the Eastern cities possessed the required fame.

When the General Committee adjourned its meeting in Washington, where this work was done which we have just recounted, being in session one day, the filling up of details and selections for minor positions in the Councils of the

Sections was committed to an Executive Committee. This Executive Committee prosecuted its work under the same narrow impulses that had characterized the beginning of the Committee work; and just a few weeks before the meeting of the Association in New Orleans, it assumed the responsibility of publishing the results, not only in contempt of the Association, but without calling a meeting of the General Committee, and thereby cutting off all opportunity to have their work reviewed, even by those who had been added to the Original Committee, and thereby made in a measure jointly responsible for the results.

Speaking of this action of the General Committee and of the Executive Committee appointed by it, and of the dissatisfaction of members of the profession of Philadelphia, New York, Boston and Washington, with the proceedings of the Amer. Med. Association taken at New Orleans, last April, when "it sat down upon" the efforts of these gentlemen to glorify themselves by using the Association in the way of representing themselves as the eminent men of this country, the *Journal of the American Medical Association*, edited by Dr. N. S. Davis, of Chicago, says:

"If the logic of events ever proved anything, the events we have briefly detailed, taken in connection with the pompous attitude at present assumed by a handful of otherwise respectable members of the profession, in the cities of Philadelphia, Washington, Baltimore and Boston, prove two things with the utmost clearness. The first is, that the majority of the Committee on Organization as at first constituted, whether consciously to themselves or not, practically made a bold attempt to use the national character and prestige of the American Medical Association as a "decoy duck" to obtain, first, their own appointment as a committee, and second, from the International Medical Congress in Copenhagen an acceptance of the invitation to hold its next meeting in this country, and having accomplished these, to coolly turn the Association into a "foot-ball" and contemptuously kick it out of their way, that they might organize the American part of the proposed Congress in the interests of themselves and a score or two of personal friends in three or four cities, entirely regardlesss of the interests or wishes of the general profession of the United States, in whose name the invitation had been given. Unfortunately for the final success of their scheme, the "foot-ball" proved too heavy, and their kicks only resulted in breaking their own toes.

"Smarting under the injury done to their pedal extremities, they first vociferously denounce the Association and all connected with it. And yet, no sooner had the Association added a sufficient number of new men to the original part of the Committee to dress their wounds, drop out the specially obnoxious ones, and make their places available for a wider distribution of the official positions, and kindly offer to continue all the rest as before, than they, by concerted action in three or four cities, throw themselves back on their supposed dignity, and in the exact spirit of the modern labor union strikers, refuse to accept any positions themselves or let any one else, if they can prevent them, until the American Medical Association shall with all due humility take itself and the new members out of their way, and allow them to join their old *Code*-repudiating comrades and again fix all things up in their own way."

When the AMERICAN MEDICAL ASSOCIATION met in New Orleans, April, 1885, the proceedings which we have detailed came before it. Dr. J. S. Billings made a report of what had been done. What followed we copy from the *Peoria Medical Monthly*, rather than to take the time to write it ourself:

"Then the trouble began. Dr. John V. Shoemaker protested against the acceptance of the report, stating that the American delegates at Copenhagen had been ignored at Copenhagen; that the Committee had recognized the New Code men. In this opposition to the report he was seconded by Dr. F. E. Daniel, of Texas; Dr. J. M. Keller, of Arkansas, and others, and the resolution was voted that the Original Committee be enlarged by the addition of one member from each State and Territory, also one each from the Army, Navy, Marine Hospital Service and the District of Columbia, and that the Committee thus enlarged shall proceed to review, alter and amend the action of the present Committee as it may deem best. And by a second resolution the whole Committee (the original eight and the thirty-eight just appointed) was authorized and empowered to fill all vacancies that may occur by death or inability to attend the Committee meetings, and to appoint the officers of the Congress.

"The new members of the Committee met in New Orleans immediately and elected Dr. Beverly Cole, of California, Temporary Chairman, and Dr. John V. Shoemaker, Temporary Secretary, and called a meeting of the whole Committee to be held in Chicago, June 24th. The Chairman of the Original Committee of eight had already issued a call for a meeting of the whole Committee at Washington in September, but the temporary officers of the newly appointed annex had the majority and the Chicago meeting was held last week. About thirty members were present and the work of revision undertaken. Practically ignoring the organization of the Original Committee, Dr. R. B. Cole, of California, was elected Chairman; Dr. J. S. Lynch, of Maryland, Vice-Chairman, and Dr. John V. Shoemaker, of Pennsylvania, Secretary. It was then resolved that a Sub-Committee of nine be appointed to prepare a revision of the rules and plan of the Ninth International Congress held at Copenhagen in 1884, for use at the Washington meeting of the Congress in 1887. This Sub-Committee was composed of Drs. Scott, of Ohio; Wathen, Kentucky; Billings, U. S. A.; Hamilton, Marine Hospital Service; Upham, Vermont; Gouley, New York; McLaughlin, Texas; Lincthicum, Arkansas, and Shoemaker, Pennsylvania. This Sub-Committee reported the next day that they had reduced the number of sections to sixteen, and had made some changes in the list of officers. The Committee then adjourned to meet in St. Louis in May, 1886.

"The principal changes made were as follows: Dr. E. W. Williams, of Ohio, Chairman of the Section on Ophthalmotology, instead of Dr. H. D. Noyes, New York; Dr. J. N. Mackenzie, of Maryland, Laryngology, instead of G. M. Lefferts, of New York; Dr. J. Lewis Smith, Diseases of Children, instead of Dr. A. Jacobi, New York. The members of the Council and other officers of the different sections have not yet been announced."

THE CHOLERA.—The cholera still prevails to an alarming degree in Spain. On August 13, a cablegram from Madrid stated that, on the day before, the 12th, 4,433 new cases of the disease had appeared throughout Spain, and 1,648 deaths had occurred from the same disease. It is probable that these figures give very much less that the real number. It is not unlikely that 6,000 new cases were more nearly the number of the new cases, and 3,000 deaths.

It is said that there is great excitement in Seville over the

Government proposal to abolish the power of the local authorities during the prevalence of cholera, because of the inefficiency of sanitation, and to itself assume the direction of the city's local affairs. The populace are hostile to the doctors, and averse to interference in family affairs, and they strongly support the local authorities. Great crowds assembled in all the public places one evening, to discuss the situation, and the civil guard was called to disperse them.

Granada is suffering most from cholera. The people attribute the visitation to Divine wrath, and wear amulets to preserve them from disease. The priests and Sisters of Charity are assiduous night and day in attending to the wants of the sufferers. The Archbishop has sold his equipages in order to obtain funds for relief measures, and has offered his palace as a hospital.

The ravages of the cholera in Granada are horrible. Scores of victims of the disease drop and die in the streets, where, in many cases, they remain for hours before they are gathered up at night for a hurried and unceremonious burial in a common trench. Granada has suffered from a lack of doctors, and medical students have been detailed to attend to patients.

Cablegrams from Paris state that reports received from Marseilles assert that the cholera there has received a fresh impulse, owing to the extreme heat that was prevalent about the 13th of the present month; that the number of new cases has steadily increased, and that the disease is unusually fatal in consequence of the heat.

The Government at Rome is said to be arranging to convey poor Italians employed at Marseilles and along the French coast by rail to Italy, in order to be able to supervise their habits and prevent their infection with cholera. The *Inporma* (a newspaper) protests against this action as calculated to introduce cholera into Italy.

A Circulatory Riot.—The piles! aha! I knew them well; each feature, though I may not see 'em; old foes, which fume, and fret, and swell, and vex and plague my perineum. You blush at mention of a "pile," and would, perhaps, the theme avoid; well then, suppose, for style, we call the thing a hemorrhoid. Though bearing an ill-omened name, it seemed as if they might not pain us, when first, as visitors, they came and took up lodgings in the anus. But now, at each succeeding bout, the pelvic pains appear distincter, and there can be no longer doubt of their relations with the sphincter. You ask me, by what obvious signs one may with certainty detect 'em. Well, I can only say that mine are like a hornet in the rectum, which, having wandered from the way, and angry at the situation, stings right and left while yet it may, and tortures one in defacation. "Avaunt! it is a vulgar rhyme." Yet stay, there must be means to cure 'em? Oh, yes, if you but give them time, and meantime patiently endure 'em. There are a thousand cures you know, all certain sure, as dead-shot candy; 'tis well to buy a score or so, and lay them by to have them handy. And when the hornet's rage is spent, and things assume their wonted quiet, the cure—though it may not prevent—will quickly quell the painful riot.—*Canadian Practitioner.*

DR. JOHN L. ATLEE, the venerable ex-president of the American Medical Association, died at his home in Lancaster, Pennsylvania, on July 18th. Dr. Atlee was born on Nov. 2, 1799, and was at the time of his death in his 86th year. He graduated from the University of Pennsylvania in 1820, and since that time has practiced his profession in his native city. He has been prominently identified with important medical interests during an active professional life and has contributed in many ways to the advancement of his profession. As a surgeon he was widely-known, and in connection with the late Dr. W. L. Atlee, was largely instrumental in reviving the operation of ovariotomy in this country. Dr. Atlee was an extremely genial and kindly man in his social relations and his venerable presence has drawn around him many friends during his attendance upon the annual meetings of the National Societies to which he belonged. He has lived long and well, and now passes into rest with the esteem and respect of a wide circle of professional friends and admirers.

DR. JOHN STAIGE DAVIS, the widely-known and popular Professor of Anatomy, died at the University of Virginia on July 16th, after an illness of some weeks' duration. Dr. Davis was born in Albermarle County, Va., and was educated at the University of Virginia, from which he received the degree of M.D. in 1841. He served as Demonstrator of Anatomy in the University from 1845 to 1849, and was subsequently made Professor of Anatomy and Materia Medica in the same institution. As a lecturer on this branch Dr. Davis enjoyed a national distinction, and, perhaps, was equaled by few teachers in this country. He possessed the faculty of making the dry subject of anatomy popular and fascinating to his students, who graduated from the University thoroughly drilled in this branch of science. As a man, Dr. Davis was greatly beloved by all who knew him. His death is a serious loss to the University and to the profession of his State.—*Maryland Med. Jour.*

PRURITUS ANI.—In the *Brit. Med. Jour.*, Nov., 1884, p. 1110, a correspondent writes that he has found great use from the following mode of treatment in cases of pruritus ani: The patient, having sponged himself well with warm water, should syringe some up the rectum; then soaking a pledget of cotton wool in the following lotion, he should pass it well up the anus, leaving it there till he next defecates, when it must be renewed. ℞ Acid carbol. gr. xx.; tincture opii ʒiv.; acidi hydrocyan, dil. ʒij.; glycerini ʒiv.; aquæ ad ℥vj.—*N. O. Med. & Surg. Jour.*

AN ANOMALOUS HUMAN LUNG HAVING FOUR LOBES ON THE RIGHT SIDE.—Dr. William A. Edwards records in the July number of *The Amer. Journ. of the Med. Sci.* an instance of this extremely rare anomaly, which was situated between the middle and lower lobe. It was quite as long as a man's hand, and at its widest part measured two and a quarter inches, tapering to a quarter of an inch, and finally to the thin border as in the other parts. Its tissue was normal and functionally active.

THE sum of 25,000 francs has been given to the Academy of Medicine of France, to be awarded as a prize to any one discovering a remedy recognized by the Academy as efficacious in diphtheria. Until the award, the interest is to be paid every two years as awards for the best research on the disease.

W. R. WARNER & CO. have received the first premium at the World's Exposition, New Orleans, for great uniformity and solubility for their sugar-coated pills. This is the ninth World's Fair prize which attests their excellence.

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Advertisers, as a general rule, are very willing to send specimens of their preparations to medical men soliciting them, or to send them circulars, etc.

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Original Contributions.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy, Cincinnati, Ohio.

EXPOSITION OF THE METHOD OF TREATING DIPHTHERIA WITH THE HYDRO-CARBURETTES. BY DR. DELTHILL.

1. If it be suspected that a person has come in contact with a case of diphtheria and an explosion of the disease is feared, it is well, from a prophylactic standpoint, to submit the person to the evaporations of essence of turpentine, either by having him respire, from time to time, the essence, or saturating the bedclothes of his bed with it.

2. If the diphtheritic symptoms manifest themselves, and if the case does not appear very grave, we can content ourselves with evaporating in his room the essence of turpentine in a sand-bath, maintained at a temperature of about 140° F. The essence used should be crude and not refined, like that used in our pharmacies. Naturally, the quantity to be evaporated will vary according to the size of the room and the height of the ceiling. In a very large room it will be necessary to have the evaporation going on at several places at the same time. The evaporation of these carburettes will generally suffice, in a majority of cases, to break up a diphtheritic angina, taken at the start.

3. If, after these first measures, the manifestations seem to augment in intensity and to take on a toxic character, it will become necessary to make fumigations by means of combustion of a mixture of coal tar (Goudron de Gaz.) and essence of turpentine.

This is the procedure: Put about forty grammes of coal and thirty grammes of essence of turpentine into a metallic or strong earthen vessel. This vessel should be placed on a metallic plate, to avoid any accidents of combustion in case of bursting of the first recipient.

The vessel, thus arranged, is placed on the floor in the center of the room and lighted; it generally suffices for this purpose to hold the spoon, used in pouring out the essence, in the flame of a candle and then thrusting it into the mixture.

The fumigations should be made at intervals of two hours, and then, as amelioration manifests itself, at greater intervals.

Preferably a small room should be chosen for this purpose, and all the issues, as chimneys, etc., carefully closed.

The patient is carried into this room, where he is allowed to remain for about half an hour; he is then carried back into his chamber, where the evaporations of turpentine are continued in a permanent fashion.

If the odor of turpentine should be too penetrating for certain persons, a little essence of citron or lavandula can be added, which will transform it into a veritable perfume.

As to local applications, we can content ourselves with swabbing or penciling with lime-water or lemon juice, applied at least every hour, day and night. We can also apply a mixture of oil of sweet almonds and essence of turpentine, of lemon or of lavandula in the yolk of an egg and syrup of gum arabic.

Give, as occasion requires, emetics when the catarrhal cough, very pronounced, indicates the necessity of expelling the loosened diphtheritic material encumbering the bronchial tubes. Ipecacuanha seems to merit the preference, because it does not depress the patient so much like sulphate of copper and the emetic that opposes itself to ulterior alimentation.

Lastly, we must not hesitate to perform tracheotomy when it should appear indispensable, continuing, at the same time, the measures above indicated.

The duration of this treatment is ordinarily from twelve to fifteen days, during which the fumigation can be made without danger, even in cases of infants but a few months old.

Quinine should be given in cases of general intoxication. Maintain a very high temperature in the room.

(*Journal de Medicine, Paris*).

A SPECIAL FORM OF PARALYSIS CONSECUTIVE TO DIPHTHERIA.

Stadthagen observed a patient, eleven years of age, who, at the age of four years, had been attacked with diphtheritic angina. There came on afterward a paralysis of the velum palati, and, several months later, of the left leg. This state persisted for five years, the paralysis of the palate seeming to diminish as that of the leg increased. Afterward there came on a loss of power in the right arm, and six months before the appearance of the author's communication, symptoms of medullary trouble began to manifest themselves, with enfeeblement of the two left extremities. There was also a paresis of the muscles of the lips, giving a peculiar expression to the physiognomy, and the tongue could be put out only with difficulty. The sensibility of the teeth was preserved, as also the sensibility to the excitation of galvanic or faradic currents of the muscles of the lips and of the tongue. The reflex excitability of the velum palati was lost, and the speech was hesitating, monotone and nasal. There were no trophic troubles in any of the paralyzed limbs, as is so frequently seen in cases of chronic bulbar paralysis. The right leg was in rotation and adduction, and the patient dragged it in walking; but there was not a manifest trace of ataxia when the eyes were closed. If a passive movement was attempted with the limb, a violent contraction ensued and the patellar reflex was exaggerated. In the right arm was a mixture of paralysis and tonic contractions; these latter became evident by the voluntary movements of the muscles antagonistic to the paralyzed ones. The same phenomena manifested themselves in the left arm. It might be thought that in this case the paralysis was diffuse, and it has not been determined whether it was continuous or interrupted. It stretched upward as high as the medulla and reached as low as the lumbar protuberance of the spine. The susceptibilities to electrical excitation and the absence of atrophy of the muscles demonstrate that the lesion does not extend beyond the limits described. There was no vertigo, no trembling and no mystagmus. In the course of the discussion that followed this communication (Medical Society of Berlin), Leyden remarked that he considered it a case of chronic bulbar paralysis. (*Jahrb. f. K. Journal de Medicine, Paris.*)

FOR HOARSENESS AND BRONCHITIS OF SINGERS.

℞.	Ammon acetat.	
	Potass. bromid.,	āā 45 grs.
	Spirits aconite,	30 "
	Tincture of belladonna,	22 "
	Syrup of tolu,	750 "
	Infusion of linden flowers,	2,250 "

To be taken one tablespoonful four times daily.

ALTHEA IN PSORIASIS PALMARIS.

Take fresh leaves of althea (officinalis), have them well cut up, then boil in lard for half an hour. Excellent results.

AGAINST SWEATS.

℞.	Agaricine,	8 grs.
	Pulv. doveri,	75 "
	Mucilage,	qs.

Make 100 pills; one to two pills per day. The agaricine does not, like atropine, produce symptoms of intoxication when long continued.

FOR MIGRAINE.

℞.	Quinia sulphate,	grs. xvi.
	Caffeine citrate.	
	Acid tartar,	āā grs. xv.
	Sacch. alb.,	ʒ iiss.
	Morphia (pure),	grs. ¾.

M. Divide into five powders, to be taken one powder morning and evening. (*Journal de Medicine, Paris.*)

GASTROSTOMY FOR MALIGNANT ESOPHAGEAL STRICTURE.—(Mr. Mitchell Banks of Liverpool.) "So long as a man can swallow milk and strong beef-tea through his stricture, he is as well off as if he were getting it through a hole in his stomach. When he can no longer do this his time has come. It is far more merciful to give him plenty of morphia, and let him die in peace, than to torment him with a surgical operation, which can only preserve life for a brief period under the most distressing circumstances to himself and all around him."

Scraps.

Mr. Editor:—All of us, in the every-day rounds of our professional work, run across occasional oddities, exceptional cases, peculiarities of ordinary cases, and things of like ilk, which, though not, perhaps, of great moment, are still of sufficient interest to deserve being briefly put before our brother laborers, either as matters of curiosity or to enable them to steer clear of shoals on which we may ourselves have grounded. Therefore I propose herein to record some things of this character, and so my article must, perforce, be a kind of medical medley—I call it "Scraps."

A couple of months ago I was called to reduce a luxated elbow for a young well-to-do farmer, five miles in the country. He had been to town, imbibed too freely, fallen off his wagon on the way home and sustained a backward luxation of the ulna and a lateral displacement of the radius. When apprised of the nature of the injury, he positively declined to allow it reduced until he should "get sober," and as he was a very powerful, large fellow, and his family backed him in this decision, I reluctantly left him and returned home under protest, he being an old man and friend. Next day, assisted by six men to hold him, at his own request, and without chloroform, I reduced the dislocations without much trouble, and in a reasonably expeditious time. Nevertheless, despite the patient's nerve, and in the face of his great bodily strength and often-tested power of endurance, this man passed into a state of partial spasm just at the moment the bones slipped into their accustomed places. His face was powerfully distorted by being drawn to the left, and there held in tonic contraction for, perhaps, a full minute; the left eye also rolled up beneath the lid, the tongue was only partially under his control, articulation thick and labored, consciousness unimpaired, extremities on both sides cramping, and then chronic spasms passing over them for, perhaps, three or four minutes. The arm just reduced cramped the hardest of any, holding the bones hard in their places under my fingers. After this the man got along nicely, and made a good and a perfect recovery.

Not long ago a woman walked into my office complaining of an excruciating pain in the right ocular conjunctiva, near outer canthus. The spot affected was, she said, not larger than a pinhead. She insisted that there was no cause for the trouble, which had just come on suddenly, and a careful search failed to detect signs of a foreign substance *de facto* or *ex-facto*. There was *very* slight superficial injection of the locality complained of, and that was all. Sent her off after instillation of solution of atropine and morphia in the affected eye to relieve the severe pain. Three hours later she returned free from pain, but with eye closed and palpebræ much swollen. Between them extruded a peculiar mass looking like a gelatinous nasal polyp. On examination this proved to be a bleb, full of serous fluid, about as large as an almond (shell and all), with a base or pedicle not over two lines in diameter, located at the very spot where the pain had occurred. It was almost devoid of sensibility, and only inconvenient by its location and bulk. Curious to watch its evolution, I bandaged the eye and left it intact. Four days later it was gone, the conjunctiva retracted to its original place and size, and only a hyperæmic eyeball to tell of any prior disturbance.

Having a sick lady at my residence under treatment, I took a half-ounce vial of Fowler's solution home one evening and set it on a bracket near her bed, without a label, but with verbal instructions to her to take five-drop doses at mealtime. At the same time my wife was laboring under an asthmatic seizure for which she was taking an elixir of chloral hydrate, in teaspoonful doses, diluted. This elixir was also in an unlabeled half-ounce vial, but in another room. During the night I was called away from home, and in my absence my wife found this Fowler's solution bottle, its owner being asleep, thought it was her own chloral, and took a fluid-drachm thereof without, strangely, too, discovering her error by the taste. Late the next day I returned home and found my patients both improved. At the supper table I noticed a singular appearance of my wife's face, puffy and pasty, with a dazzling eye and a strange, far-away look, unnatural for her. Inquiry developed the fact of her overdose of the arsenic, but it was too late for any antidote, and as none seemed specially needed, I let it go, with no further inconvenience to her than dimness of vision and a dazed condition of mind, or seeming loss of identity, of which she was fully conscious herself, lasting two or three days. She seemed constantly looking into futurity, even when gazing you squarely in the eye. Her asthmatic seizure was wholly dissipated by this heroic treatment, and I label all drugs going into my house now.

Last winter I lost a case of typhoid fever in the fourth week, without complications,—a young man of about 22 years, run down by confinement as a school-teacher and a close student himself, when, for a whole week previous to his death, and when in a condition of absolute apathy, semi-comatose, and suffering from rather free diarrhœa, I had the opportunity of witnessing a peculiar thermometric freak. From the seventh day preceding his death his temperature stood at 95½, both by rectum and under the tongue, with a skin sometimes seemingly hot and dry, and again cool or cold and moist. My thermometers were old and reliable, in use yet, and no treatment, external or internal, nor the varying condition of his pulse influenced this temperature more than the mere fraction of a degree.

I met the other day an old medical friend, still in the harness, who repeated for me a trick which he can do at pleasure, and which I have seen done by him many times—the stopping of his heart by his own decree for a brief period. He seems to possess a volitional inhibitory control of the cardiac muscle or centre, not known to physiology as a science. By a mere exertion of will power he can, without suspending his respirations, stop the heart-beats abruptly for 8 to 10 seconds at a time, or he can modify this inhibition by dropping a beat at regular intervals from the rhythmic systole of the heart. The stoppage is very sensible both to him and the observer; to the latter by the finger on the pulse, by examination of the pre-cordia with the hand or eye, or by the stethoscope. He has been aware of this power for 20 years or more; is a rugged, hard-working country practitioner, but always very spare of build, and for many years a confirmed and acknowledged opium-eater.

Examining a man for a pension some months ago, in my capacity as U. S. Examining Surgeon, I saw a peculiar oddity in hemorrhoids. Two external piles of some size had formed, one on each side of the anus, directly opposite each other. They had at some previous time inflamed and ulcerated, their raw surfaces coming in contact, probably by the tumefaction of the entire parts; adhesive inflammation took place, most likely very quick by first intention, and at last left two long flabby, tit-like mucous coudy lomata crossing the anus, of which the victim was ignorant, but which, mechanically, split all solid or semi-solid faeces that he passed. I divided them with the scissors on the spot.

Well, I have spun my scraps out long enough for one article and will close. These are only a few, of many, curious things I have seen in my practice—every active medical man must see scores of such interesting oddities, and there are many of them worthy of record. If I can find leisure between now and then, I will try to give you another batch for next month's issue.

E. A. COBLEIGH, M. D.

ATHENS, TENN.

The Relationship of the Teeth to the General System.

BY ANDREW G. FRIEDRICHS, M. D.

Read Before the Lousiana State Medical Society.

THE frequent display of ignorance on the part of *Medical* men has prompted me to collect a few facts and endeavor to impress upon the profession the necessity of considering the importance of the teeth; that they are an important factor and play a conspicuous role in preserving the human organism in a state of health. The teeth seem to be regarded by most practitioners as mere pegs inserted in the alveolar processes, to serve simply as masticators of food, forgetting that they are living organisms, being supplied with nerves, arteries and veins, which likewise sustain relations with the system in general. I think it is about time that the profession should appreciate this fact. Until they do, they will endeavor in vain to point out the causes of obscure diseases, simply because they have sought for them everywhere but in the right place. Still the teeth are regarded with indifference, and why is it? To insinuate that it is a subject of no importance to us would hardly be tenable; to suppose that their importance is not recognized is less so; to assert that they play no part in the economy is even less; and to call all my confrères ignorant would not be justifiable. Nevertheless, the fact stares us in the face that they rarely receive any attention, and the only palpable solution is simply that such is due to criminal neglect in some, or, what is worse, to an unwarrantable ignorance in others, who, I am sorry to confess, compose the majority.

Consider with me for an instant what important functions these organs are called upon to perform, and what a powerful morbific influence the teeth and their contiguous parts must unavoidably produce on the general constitution. How they are supplied with nerves, their attendant ganglia and plexuses; their position in the maxillary bones (on each side of the oral cavity); their relationship to the antrum, which is again in contiguity to the nasal fossæ. The posterior lower molars are but little removed from the tonsils, *Eustachian* tubes, the parotid region and the external and internal ear. The roots of the upper back teeth are near to the orbit and its important contents; more posteriorly they approach the spheno maxillary fossa and fissure, all of which are frequently the seat of dental disease.

The gums and teeth, very often, are valuable aids as a means of diagnosis in hereditary syphilis, scrofula, and the various pathological conditions of the gastro-intestinal mucus canal.

During dentition, a period so fraught with danger that seven per cent. of the deaths are ascribed to teething, we can fully appreciate this, when we consider at this epoch, how much the spinal predominates over the cerebral system, when the slightest irritation could produce the most fatal results; for that which causes a shudder in a man, would probably throw an infant into convulsions. The symptoms of dental irritation may, then, be and are frequently confounded with congestion or inflammation of the brain; and full well we know what would likely be the result of a failure in a correct diagnosis.

I will mention a few of the maladies which are dependent upon, or synchronous with the eruptive period, to wit.: Cholera infantum, diarrhœa, constipation, increase or decrease of urine, convulsions, transient paralysis of the arms and legs, insomnia, marasmus, etc. Nor are the later periods in life more free from diseases connected with the teeth.

There is no affection that is of greater importance to us than neuralgia, certainly none more annoying to our patients.

Suppose we call to mind the extensive sympathetic connections of the trigeminal nerve, it will not be strange to us that any portion of the face, neck, throat, or any of the *associated* parts that are supplied by the nerve itself, or any of its related nerves, should be the seat of reflex trouble from a diseased tooth.

But recently a gentleman came to my office, who was suffering from a most agonizing pain shooting from the orbit of one side, across the forehead to the other. This neuralgia had continued for two months, during which time he had hardly had any rest, had eaten hardly anything, and when I saw him was quite emaciated. He had been under the treatment of physicians, quacks, homœopaths and a hydropath, but with no relief. He never complained of the slightest pain from his teeth; however, on examining his mouth for a cause, I discovered a semi-decayed dead posterior superior bicuspid, with no connection between the cavity of decay and the pulp cavity. With a spear-shaped drill I established a connection between the two cavities, and relief instantly followed.

The cause of this neuralgia was the compression by gases evolved from the decomposing pulp upon the dental nerve.

Dr. Johnson speaks of a case of a well-known physician who was forced to relinquish an extensive practice, as a consequence of a tic-douloureux caused by an osseous excrescence growing from the dental wall.

Dr. Emmaich reports a case in which a man consulted him on account of a painful affection of the eye, which had lasted fourteen years and occasioned great suffering. There was considerable vascularity of the conjunctiva and sclerotica especially around the cornea, which structure itself was somewhat opaque and spotted. There was a continual flow of tears with pain and intolerance to light. All these symptoms were aggravated by any indiscretion in diet, or by the use of the slightest stimulant, such as a glass of wine. All kinds of remedies had been tried in vain at different times and the affection seemed incurable.

Dr. E. upon examining the upper jaw, discovered an extremely sensitive *carious* tooth on the side corresponding to the afflicted eye. The tooth was extracted and immediately afterward the eye symptoms subsided.

The affection of the eye evidently was the result of sympathy between the second and the third branches of the fifth pair of nerves.

Dr. Trudeau, of Paris, mentions an instance where insanity was caused by a diseased tooth. He says: "Mr. Equirol told me he had cured a young lady, who was insane, of her mania, by the extraction of a second molar tooth, which was preventing the growth of a wisdom tooth."

Epilepsy has resulted from dental irritation. "Some time in the year 1801," says Dr. Rush, "I was consulted by the father of a young gentlemen in Baltimore, who had been affected with epilepsy. I inquired into the state of the teeth, and was informed that several of them in his upper jaw were very much decayed.

"I directed them to be extracted, and advised him afterward to lose a few ounces of blood at any time, when he felt the premonitory symptoms of a recurrence of his fits. He followed my advice, in consequence of which, I had lately the pleasure of hearing from his brother that he was completely cured.

Likewise general paralysis has been brought on by the same cause. I will cite a case reported in the *London Lancet* by J. L. Levison, of Brighton.

A young lady was brought to his residence, in a carriage, to have her mouth examined. On being removed, she was supported on one side by a lady and on the other by a man-servant. Her entire muscular system seemed paralyzed. Her legs trailed on the ground like useless appendages. Her arms, when unsupported, fell powerless immediately. Even the muscles of her tongue were paralyzed, and in her effort to speak this important organ remained in a quiescent state.

On examining the mouth a dens sapientiæ of the lower jaw, very carious and deeply imbedded in the temporal muscle just below the coronoid process was perceived, in which locality there was an extensive inflammation.

Extraction was suggested, and though some advantage was anticipated, the actual result was surprising. She instantly obtained the free use of her tongue, which she immediately used to communicate the important fact that ever since the extracted tooth had been forcing its way through the gums she could date the gradual loss of power over her limbs. One month after, the complete use of her limbs was restored.

About two months ago, a case similar to the above came under my observation presenting all the paralytic symptoms except that of the tongue. She had likewise been a sufferer for several years, during which time, being a lady of means, she had availed herself of the services of gentlemen of recognized ability, both of this city and elsewhere, whose efforts, however, failed to afford any relief or arrest the progress of the malady.

Upon examination of the mouth, the teeth were diagnosed as the source of the trouble. All of these organs in the superior maxilla were found in a very carious condition and the gums surrounding them were very much inflamed. Pus exuded from them upon the slightest pressure. Extraction was recommended; after the performance of this operation recovery, both rapid and complete, ensued.

Sir Astley Cooper speaks of hemiplegia being cured by the extraction of a tooth.

Catalepsy has resulted from toothache. A plough-boy, who had complained of toothache in the morning, half an hour after commencing work, was found lying a short distance from his plough, apparently dead. He was carried home and a physician sent for, who, after a careful examination, concluded that the affection must have been produced through the dental nerve. The tooth was extracted, and the boy immediately got up and expressed himself as being as well as ever.

Dental abscesses have frequently been mistaken for scrofula. I positively know of a case of this kind being diagnosed as a cancer by a prominent surgeon of this city. The gentleman referred this patient to five other surgeons, so positive was he in this belief. All but one confirmed his diagnosis. The dissenting one advised her to see her dentist and ask his advice.

The patient's mouth was examined. An impacted root was found, which was extracted. In one month, all traces of this supposed cancer had entirely disappeared.

There is a case of pyæmia caused by dental abscess which is very interesting, and I will report it in detail.

M. C. W., aged four years and a half, was admitted to Guy's Hospital, under the care of Mr. House, on September 30th, 1874.

"The family history was good, except that there was some account of a tumor in the grandmother. The child had been a healthy boy six weeks before his admission, when he came from school with a bad attack of diarrhœa. A few days subsequently, he was much frightened by a fire, and it was within a short time of this that his left eye was noticed to swell. In a fortnight the other did the same, but no notice was taken of it; he gradually grew worse, and for three weeks prior to his admission, he was in a drowsy state.

"On admission he was delicate and vacant-looking. The left eye was much more prominent than the right, with thickening along the upper margin of the orbit. Beneath the edge, under the eyelid, was a hard, cartilaginous, freely movable body, which reached backward apparently into the orbital cavity above the eyeball, while it extended downward into the eyelid.

"The movements of the eyeballs were perfect and sight was unaffected. The temperature was 104.5° in the morning and 102.7° in the evening; pulse 160.

"He was seen by Dr. Fagge, who could discover no cause for the elevation in temperature.

"Dr. Fagge thought, however, that as the roof of each orbit was evidently affected, and the boy tottered as he walked and was peculiarly torpid, the disease, whatever it was, had extended from the orbital fossæ to the cerebral hemisphere.

"The ophthalmoscope revealed only large and tortuous veins, with a small hæmorrhage on the outer margin of the right optic disc. The temperature remained high, and he rapidly became much worse, losing control over his evacuations, and he died nine days after his admission."

The autopsy showed on the right side that pus extended all over the outer side forward, and appeared externally over the superciliary ridge, while it passed backward through the optic foramen and sphenoidal fissure; underneath the cavernous sinus, across the *sella Turcica* and grooves for the optic commissure; through the right optic foramen and right sphenoidal fissure; all this beneath the dura mater of the base of the skull, the bone itself being rough and carious, and part of the body of the sphenoid infiltrated with a grumous, chocolate-colored pus. Thus, it appeared the right orbit had become affected after the left orbit; pus was traced into the spheno-maxillary fossa and thence to the condyle of the lower jaw. The articulation was free, but the whole of the condyle and much of the ramus on this side was bared of its periosteum, and pus lined the inferior dental canal as far as the first molar tooth, which was decayed, lying loose in its socket and with carious bone about it. It should also be said that, though the pus so closely surrounded the cavernous sinus on each side, yet these *sinuses* were quite unobstructed. So also was the longitudinal sinus, though its walls were very much thickened. The frontal sinuses were normal. The lumps felt during life over the left superciliary ridge consisted of a tough, opaque, yellow mass very much like some lymphomata as seen in the neck, or like some gummatous matter. It certainly had all the microscopic appearances of some new growth, but, after further examination, it was evidently of an inflammatory nature. Its precise situation was from the *lachrymal* duct externally to the inner margin of the orbital ring, and it lay half protruding from and half within the orbit, and adherent to the bone, which on its removal was bare of periosteum.

There can be no doubt from the *post-mortem* appearance, that the source of all this mischief was a decayed tooth. It had led to caries of the bone, to suppuration in the inferior dental canal, and thence the pus had followed the course which has been described. It is a good illustration of the bad results which may follow a slight amount of mischief in an unhealthy subject, and is remarkable in that there is no history of toothache, swelling or other trouble about the jaws. Excepting a bad attack of diarrhœa, the first symptom noticed was swelling, first of one eye and then of the other. Notwithstanding that, by the time the second eye was affected, as shown by the inspection, there must have been considerable suppuration at the base of the skull, about the pituitary fossa, and very probably about the vault also, the disease at its onset must have been peculiarly insidious, and the pyæmia of late accession, within a few days of his admission.

In one of the numbers of the *Bibliotheque Germanica Chirurgical* there is an account by Dr. Seebold of a young woman who had been affected for several months with great inflammation, pain and ulcers in her right upper and lower jaws at the usual time for the appearance of her catamenia, which were always deficient in quantity. On inspecting the seat of trouble the doctor found two decayed molar teeth, which he directed to have drawn; in consequence of which the patient was relieved of her monthly disease of the mouth, and ever afterward had a regular discharge of her catamenia.

Amaurosis has been known to have been produced by the overcrowding of teeth in the maxilla. Even sciatica has been said to have been cured by the extraction of a tooth. A great many of the tumors of the maxilla, from a simple abscess to an odontome, have their origin in a diseased or impacted root, which, if only recognized in their incipiency, how easily could the remedy be applied and the disease cured.

These facts, though but little attended to, should not surprise us when we recollect how often the most distressing diseases are brought by very inconsiderable inlets of morbid excitement into the system. A small tumor, concealed in the fleshy part of the leg, has been known to bring on epilepsy. A trifling wound with a splinter or a nail, even after it has healed, has often induced a fatal tetanus. Stone in the kidney has excited most violent commotions in every part of the system. Certain mental states affect certain functions in certain definite ways. Sudden anxiety may cause increase of peristaltic action, and joy diminish the gastric secretions, and cause a loss of appetite. Hundreds of facts of a similar nature are to be found in the medical records.

Is it surprising, then, that the teeth should often be the unsuspected cause of general and particularly of nervous diseases? Consider how often the teeth are exposed to irritation from hot and cold drinks and aliments of all kinds. What morbid effects would likely arise from the putrid and acrid discharges from decayed teeth and diseased gums, when introduced into the stomach. I may also add, what influence these organs have upon perfect mastication, when in a pathological condition; and again the connection of mastication with good health. Imperfect digestion must follow, and you rarely find a person whose teeth are in a diseased condition, who is not a sufferer from dyspesia, a disease which daily baffles the efforts of the doctor to cure, and few there are who have not experienced the sensations so graphically described by Cowper:

> "I awake like a toad out of Acheron,
> Covered with the ooze and slime of melancholy."

It is not strange that diseased teeth should produce dyspepsia; it is easily accounted for. In the first place, the food is improperly prepared for the stomach; secondly, the fluids of the mouth, constantly trickling into the stomach, impair its tone and vitiate its solvent secretions: and thirdly, a continual demand upon the system by the vain efforts which nature makes to cure the diseases of the teeth, and also the frequent and severe pain, diminish the nervous influence which the stomach receives, and impair its powers.

Now, I have no doubt that our success in the treatment of a great many, if not all chronic diseases, would be greatly promoted if we would only direct our inquiries to the condition of our patient's teeth—advising their treatment when diseased. It is not necessary that there should be the slightest pain or even one symptom that would attract our attention to the offending organ. Splinters and tumors and other irritations have caused disease and death, and were unsuspected as the cause. Translation of sensation and motion from parts affected to parts remote seems to be an original law in the animal economy.

All this is no issue of yesterday. Tissot, who wrote nearly a century ago, was fully aware, from observation and clinical experience, of the great importance of diseased teeth to the general health. He described toothache as resulting from gout and rheumatism, as producing disorders of the stomach and noxious matters, which, according to the pathology of his time, was the mode of expressing what is meant by constitutional disorders.

It also must not be forgotten that the teeth are often made the fools for the other organs. They are just as liable to be the objects of sympathetic irritation, and in the absence of adequate knowledge of the cause of pain, have been condemned for the faults of their fellow-organs.

Toothache has resulted from constipation of the bowels. Gout is frequently ushered in with the most terrific dental suffering.

Dr. Cartwright speaks of a gentleman suffering from hemorrhoids, who always had an acute pain in his upper molar teeth, but which invariably ceased when a hemorrhage relieved the engorged vessels.

The foregoing cases are but a few of the great number that might be collected, showing the importance of the teeth, in healthy and unhealthy conditions, to the welfare of the whole system.

They will certainly be sufficient to arouse the physician to the necessity of regarding the agency of these organs when diseased in the production and continuance of disease. It is, nevertheless, strange that physicians have paid so little attention to so important a subject, when such men as Hunter, Rush, Halford, Chapman, Garretson, and many others, have taken special pains to call attention to its importance, but in spite of that they have gone unheeded. In our recent text-books this subject is barely mentioned. I can see no other reason than that the teeth are objects that are visible to the naked eye, and on that account were considered as undeserving of notice. Were they but microscopical objects, they doubtless would have received their due consideration. Particular attention should be given to the teeth of any individual suffering from any of the acute febrile affections. In the first place we have, as we all know, a complete suppression of the salivary secretion and a deposit upon the surface of the teeth and tongue of hardened masses of mucus. Now, should its removal be neglected, or, as is the general rule, that absolutely no attention is paid to it, we find at the moment of convalescence, when we remove these masses, that the teeth are covered with carious spots or furrows, and in some instances the caries has progressed to such an extent as to place the teeth beyond the veil of redemption, the result of either neglect or ignorance, and in each case equally culpable is the individual upon whom rests the responsibility of their preservation.

The dentist is never consulted in such cases until the patient, after suffering days, in some instances, weeks, of intense agony, comes, anæmic and emaciated, relating how much he has suffered and how many sleepless nights he has passed, to have some aching tooth extracted; the same individual will tell you that prior to this last attack he never knew what it was to have an aching tooth.

Among children the case is more serious. To see those little ones suffering, and especially where extraction has to be resorted to, knowing that the very remedy for their relief would be most apt to entail upon them future misery, is sad indeed. In these cases the care of the teeth is intrusted to the attending physician alone, and he should exert his best efforts to preserve them. No consideration whatever should so absorb his attention as to neglect to give to them their proper share. The cases which I have above recited are not exceptional nor by any means rare, but are of daily occurrence, proclaiming in thunder tones the necessity of more thorough knowledge, regarding dental pathology, among general practitioners of medicine, to whose care are intrusted the well-being and happiness of many of our fellow-beings. Yet the fault lies beyond the physician; his education and training were sadly neglected by his Alma Mater, though she was quite solicitous in fortifying him with knowledge pertaining to all the other specialties.

One by one Medicine has enlarged her curriculum as the progress of the science has demanded. The Theory and Practice of Medicine composed at one time all that was deemed necessary or honorable. All the other departments of the healing art have gradually won their way to their present position and importance. There was a time when Surgery in all its branches was regarded by physicians with sovereign contempt. Barbers were the operators, and mountebanks and old women dressed the sores. Midwifery, if possible, was held to be still more despicable, and within the present century an eminent body of scientific physicians declared obstetrics to be unworthy the attention of a polite gentleman. Thus has the circle of her usefulness ever extended, and to-day, Oral Surgery, established as a distinct and proper specialty of medicine, requires that she should receive consideration as such, and no course in medicine is complete without relative instruction in this department. No medical school should be without a chair devoted to the interests of this specialty.

Before concluding, I can not refrain from mentioning what indiscretion some medical men display when asked by their patients to select for them a dental operator. They must consider one man equally as competent as another, or they do not fully appreciate what irreparable damage may be done by an ignoramus. I frequently see at my office patients who have been recommended to well known quacks, who had put the former's teeth in a most deplorable condition, and in some instances beyond redemption. Certainly, cases of this kind reflect most discreditably upon the intelligence of medical men who should have known better. They not only have betrayed the trust confided to their judgment, but caused unnecessary pain to the afflicted; had the system put in a condition less capable of resisting disease and aggravated existing maladies; conspired in a manner to rob the unsuspecting both of time and money, and finally lowered themselves in the estimation of their clients, of their confrères and of all men who have any appreciation of decency and of respect.

Allow me to ask, Would any respectable physician think, aye, ever dream, of sending his patients to any but a competent and reliable oculist or surgeon? Then, with due deference to suffering humanity, the physician should consider it his bounden duty to select none but proficient, trustworthy and skillful oral surgeons.

In conclusion, I fully coincide with Dr. Fitch, who rightly and ably remarks: "We are not to contemn the diseases of the teeth because they seem insignificant. Many persons are formed of a fibre so fragile as to be broken by the slightest shock, of a stamina so delicate as to be affected by the slightest impression. Disease in its steps at first is, as it were, soft and hesitating, weak in its powers and slow in its progress. But every instance of indulgence, and each succeeding advantage gained, confirms its steps, increases its powers and hastens its progress, and that which a moment ago seemed a thing too insignificant to mention, now rises a monster that derides human effort and whose sting is the arrow of death.

''Almost inappreciable are the beginnings of many fatal diseases, and should the grave reveal its secrets, I have not a doubt, when I consider the number of diseases produced by diseased teeth, that it would be found that thousands are there in whom the first fatal impulse was given by a diseased state of these organs; and could I raise my voice so as to be heard by every medical man in America, I would say to them: Attend to your patients' teeth, and if they are diseased, direct such remedies as shall restore them to health, and if in health, such means as shall keep them so.''

Warming and Ventilation, With Special Reference to the Exhaustion Principle.

BY D. R. SILVER, M.D., SIDNEY, O.

Read Before the Ohio State Sanitary Association.

THE subject of warming and ventilation is one supposed to be beset with many difficulties. Until recent years there were few, if any, thoroughly warmed and well-ventilated public or private buildings in this country. Happily this is true no longer. Many public buildings, especially schoolhouses and churches, in this respect approach the ideal. Of private dwelling-houses there are comparatively few that give satisfaction to the occupants. In the better class of houses, with one or more open fires on the first floor, the ventilation is ample, but when the temperature falls to 10°, 20°, or 25° F. below zero, it is commonly found that there is ''something wrong with the furnace.'' But more frequently the wrong concerns the whole house. It is not properly constructed to secure that for which it was intended, namely, the protection of its occupants against the excessive heat of summer and the intense cold of winter, furnishing at the same time an abundance of pure fresh air.

Opening of windows and doors secures this in summer, but in winter these are never to be thought of for this purpose.

The furnace should be chosen with a wise reference to the work it is required to perform in the coldest weather, and its form so designed that a large heating surface is exposed to the incoming air. A proper form of heater will secure efficiency, and at the same time economy of fuel. The model for this purpose is the modern steam-boiler, with its numerous pipes, through which the products of combustion are compelled to pass, and thus providing a very large area of heating surface. For it must be borne in mind that the temperature of air is not much affected by radiant heat. It is only by coming in direct contact with a heated body that this is accomplished. And it follows that a large volume of air can only be heated rapidly by a large heating surface.

The inlet for fresh air should be ample and wholly unobstructed, and I am here led to criticise a recent writer on this subject, who directs the incoming air to be filtered, by placing over the inlet unglazed cotton wadding, held in place by wire netting. It is folly to undertake this unless the filtering surface be more than fifty times the area of the air-inlet. To diminish the volume of incoming air diminishes the volume of warmed air, and the house can not be filled with the warming agent. It seems almost impossible for men to comprehend the fact, that what is needed to raise the temperature rapidly is a *large volume* of warm air rather than a small volume of *hot* air. For the same reason, the pipes entering each room should be large—not less than fifteen inches in diameter for a room 15 feet by 18 feet and 12 feet high. And the register should be so constructed as not to obstruct this volume. Then the room can be rapidly warmed if the cold air already in it can get out or be drawn out. And this is a necessary part of every properly working system of ventilation. The cold air must be drawn out of the house before the warm air can come freely into it. Cold air falling to the floor will fall still lower if opportunity be given. And this is best done by openings leading beneath the floor to an air-chamber heated by the waste products of combustion from the furnace. Now all the foregoing might have been briefly expressed by recommending the vacuum method of ventilation. But let me give this advice: When you build a house and apply the exhaustion principle, be sure the mechanism will secure what you desire. Dishonest work or want of care, openings in walls or floors or ceilings, open windows or doors will certainly operate against the successsful working of the vacuum method. The house as a whole must be constructed with a view to the displacement of the air in it by means of waste heat or furnace heat that can not otherwise be utilized.

One writer on this subject says: "You can not secure something for nothing in this world. It is not rational to expect to move daily in our homes many tons of air without the expenditure of power and money. If ventilation is wanted it must be paid for."

While this is true, it is misleading, for while the first cost of construction for the working of the exhaustion method is an item of expense, its daily working is provided for by power not otherwise utilized, and is an actual saving of money. The *vis a tergo*, the power from behind, is less in getting heat into the room than is the case when the absurd attempt is made to force two bodies—warm air and cold air—into the same place at the same time. Hence the ventilation can not be charged to the cost account. It is certainly very much cheaper than either open fires or the plenum method.

It has another advantage in the direction of economy, viz., the equal distribution of the warmed air to every part of the room. When heated air enters an apartment it at once rises to the ceiling. If the ceiling be porous, much air passes through and the heat is lost. If impervious, a layer of heated air soon forms all over the ceiling, which may differ in temperature with that at the floor by from 20° to 45° F.; not uncommon with open grates or tight stoves. If now the exhaustion principle be put in operation at once, this lower cold stratum is withdrawn, the warm air descends, and every part of the room is equally heated, the difference at floor and ceiling being not more than five degrees.

If the inlet and outlet be properly proportioned, the cost of maintaining a temperature of 68° to 72° F. per square foot of floor surface will not be great. But this will of course depend upon the height of ceiling. And here, as it seems to me, architects, and sanitarians as well, who have not given the subject much thought, make or direct their ceilings too high. From a sanitary point of view height of ceiling adds nothing to the room if properly ventilated. It is rather detrimental. In winter, ventilated by the exhaustion method, when warm, it is filled with pure air rapidly changed. In summer volume of air is obtained by other well-known means

The economics of heating varies with height of ceiling, other dimensions being equal. A room twelve feet high requires twice as much fuel as one nine feet high. And for all practical purposes, including architectural beauty, an apartment capable of seating forty pupils need not be in height more than fourteen feet, yet frequently we find school-rooms eighteen feet from floor to ceiling, giving cubic dimensions wholly unnecessary, and very expensive to keep at the proper temperature.

One of the chief objections to warm-air furnaces, and that which more than any other has brought them into undeserved disrepute, is the fact that rooms so heated are often filled with gases and dust. It may be that some furnaces are defective in construction and full of cracks. But who ever heard of a kitchen stove smoking if the pipe and the flue were in good working order? But if suction be brought to bear on the outside air, greater than the draft of the flue, of course gases and smoke will escape into the room. And the same applies to all furnaces. The draft in the chimney must be greater than that of its surrounding air.

It follows from this that the material of which the heater is made is of little consequence. It may be that cast-iron, when *red hot*, will permit noxious gases to pass more readily than wrought-iron under the same conditions. But this condition of heating the surfaces to *redness* is never necessary in a properly constructed apparatus justly proportioned to the work it is required to perform. Gases and dust will not escape into the house, because the stronger tendency is to pass into the furnace and out of the chimney. The time will come when, in this climate, we will not depend upon the heat of radiation for warming our houses. We are beginning to understand that proper ventilation with economical heating can not be thus secured.

The form of our heating stoves will be so modified that fresh air can be admitted to the room, and come in direct contact with the heated body, rise to the ceiling, and be thence drawn down and out by one opening in the bottom of the chimney, the air in which is heated at the top by the waste products of combustion in the stove.

So long as we shall depend upon radiation for heat, and upon the chance admission of air through cracks, porous walls, or the opening of windows or doors, we will suffer with the present evils. Open grate fires are not the cure. Every apartment, however small, if properly constructed, can also be ventilated by the exhaustion method. This is no longer an experiment. It may be applied to the cottage with one room as well as to the palace. It makes, as it were, every house to breathe, and so far as fresh air is concerned, overcrowding is an impossibility.

Selections.

Albuminuria: Its Causes and Varieties.

Senator, in the *Berliner Med. Wochenschrift*, No. 16, April 20, 1885, enumerates the following conditions liable to determine the presence of albumen in appreciable amount in the urine:

Disturbances of the renal circulation. High pressure, if the urine be concentrated, should produce albumen. This condition is actually found to obtain by muscular action, on account of perspiration and loss of fluid by the lungs, and though not so accurately, by elevation of temperature.

Passive hyperæmia acts in itself similarly to increased arterial tension, but the distended veins in the medulla of the kidneys press together the urinary tubes, leading to obstruction of the passage of urine and œdema of the kidneys. The consequence is:

a. That albumen transudes from the interstitial capillaries into the urinary tubes.

b. The urine exerting pressure upon the glomeruli produces a diminution of pressure from the glomeruli, and leads to a relative increase of excretion of albumen. To this cause of albuminuria is allied that caused by blocking of the urinary tract, manifested when the impediment is removed, or when the obstruction is not complete.

c. The condition of the filtering membrane, as in inflammation, fatty degeneration, and amyloid change. Not only does albuminuria result from an increased permeability, but the degenerated membranes and epithelium themselves appear in the urine as albumens, and this may explain the fact that in the urine albumens may have a different relation to each other from what exists in the blood. The substance of the epithelium appears to contain a body intimately allied with globulin.

d. The composition of the blood may cause the appearance of albumen, *e. g.*, from an excess of nutriment, from increased dissolution of albumen, or from excessive secretion of water elsewhere, etc. It is held by Rosenbach, that the composition of the blood is constantly regulated by the action of the kidneys, and that inassimilable albumen is excreted by the kidneys. Albuminuria not caused by inflammation, this author designates as "regulatory." His idea, though important, is not free from objections.

Finally, as Stokvis and Lehman have pointed out, the excretion of albumen can act injuriously on the kidneys.

e. Mention has already been made of the influence of temperature in connection with changes of pressure.

The author further remarks that the forms of albuminuria may be clinically divided into two classes, pathological and physiological, although no exact line of demarkation distinguishes them. Among physiological albuminurias may be mentioned that of the newborn, which is probably due to the suddenly increased pressure in the glomeruli, taken in connection with the probably increased destruction of the blood-corpuscles.

Albuminuria can exist in a healthy man for years without any sign of ill-health, and then cease.

Fürbringer, too, has found this condition in children, in whom chronic nephritis is very rare.

The author, in this connection, alludes to the albuminuria due to mental perturbation, and to that caused by cold baths.

Pathological albuminuria includes the following:

1. That present in non-febrile diseases, in which the composition of the blood is specially concerned, and in which the kidneys do not participate to any extent; in anæmia, leukæmia, and pseudo-leukæmia; in scurvy, in icterus, and in certain cases of diabetes. Nothing is found in the urine indicative of renal disease.

2. Albuminuria in non-febrile nervous diseases, in epileptic seizures, delirium tremens, cerebral apoplexy, neurasthenia, migraine, Basedow's disease, etc., and allowing for

other existing causes, numerous cases exist where the albuminuria is traceable only to the nervous condition.

3. Febrile albuminuria. In this condition there is a combination of favoring causes, such as high temperature, febrile changes in the circulation and in the composition of the blood, with consequent disturbance of the nutrition of the kidneys, and, lastly, concentration of urine.

4. Albuminuria of passive hyperæmia.

5. That due to blocking of the urine.

6. The albuminuria of pregnancy due to various causes, disturbance of the lesser circulation, passive hyperæmia due to abdominal pressure on the vessels, and constriction of the ureters.

7. That due to diffuse inflammation and degeneration of the kidneys (acute nephritis, subacute, chronic and amyloid degeneration).

8. That depending on circumscribed affections of the kidneys, such as infarcts, abscesses, and tumors.

In conclusion, the author insists on the necessity of constantly remembering that the treatment of each individual case of albuminuria varies with the exciting cause.

On the Treatment of Rheumatism.

The British Medical Association held its fifty-third annual meeting at Cardiff, England, on July 28, 29, 30, and 31, 1885. Dr. Wilks was the President of the Section of Medicine. At the first meeting of this Section, on Wednesday, July 29, the subject of Rheumatism was debated. In the *Medical Record* is a full report of the discussion. We have clipped from the remarks of the participants in the debate those of several, commencing with Dr. Bristowe, who is well known in this country as the author of Bristowe's Practice. —Ed.

Dr. Bristowe opened this debate, according to programme. He said, when first asked to do so, he thought the subject had been fairly threshed out, but on further consideration he felt that the disease was so common that it was worth the while of practical men again to compare notes. He supposed, as he knew there was an impression abroad that he was very skeptical as to the use of drugs, an impression which he admitted was perhaps deserved, that it might be intended to extract from him some admission as to an acquisition of further power over the disease. He confessed, however, that he had nothing new to communicate. He had seen no mode of dealing with acute rheumatism, and he had no manner of faith in any power of controlling it by drugs—at any rate until the last few years. He had used, as at one time so popular, nitrate and bicarbonate of potass, but he had not been impressed with the possibility of this method being curative. Then he had used blistering, after the plan of Dr. Herbert Davies, and his experience of this treatment impressed him with the belief that it did benefit the joints, but did not curtail the inflammation of those joints. Next he had tried a formula propounded by Dr. Peacock, and for some years a favorite one at St. Thomas'. It contained several drugs, including iodides, bicarbonates, colchicum, etc. He supposed this might act after the manner of a blunderbuss loaded with a variety of shot, and if a patient had a little gout in his constitution, or a little syphilis, the doses might do him a little good in such respect. He confessed, however, that he had never seen this treatment influence the progress of a case of acute rheumatism. Then came the salicylates, and in adopting them he perhaps did so without any enthusiasm. In fact he lagged behind, as he generally does, with regard to new remedies. He is content to wait while a good deal of evidence accumulates, and then, of course, as a teacher, feels bound to try them. So here he waited, he lagged behind, but there is this he must say, that having eventually begun to use these salicylates, he has not given them up, and this he can not say of any other drugs.

In regard to his conclusion, perhaps he still lagged behind many more enthusiastic physicians who regarded the salicylates as specifics for rheumatism as much as quinine is for ague, or iodides and mercurials for syphilis. As to statistics, we ought to remember that in comparing them the items or integers are unequal, and with every effort to equalize them we can not obtain perfect mathematical solutions to clinical problems. He found, however, that salicylate of soda or salicylic acid reduced the temperature in two or three days to normal. As the temperature falls the pain abates, but the affection of the joint lags behind. This, however, he considered only natural. What could be expected? A damage had been done—more or less effusion had been poured out—and time was required to repair the injury. Dr. Bristowe next turned to the cardiac lesions.

Does the tendency to heart disease disappear? he asked. There was, he said, much difficulty in answering this question, and the remark he had made as to statistics must be applied here. He held in his hand the statistics compiled from his hospital case-books, but would not read them, as that would be tedious [applause], and they would appear in due course in the *Journal*. He would, however, state that they were highly favorable to the treatment. It had been said that relapses are not prevented, and some said they were more frequent after salicylates. He knew that relapses did occur, but not more than we find in other diseases after what we call specific treatment. He thought the relapses were possibly not more than those of ague after quinine, syphilis after mercury and iodine, or psoriasis after arsenic. In these diseases, especially the last, the drug is continued after the tendency to recur is apparently gone, but they do recur after this, and, moreover, when the system is, so to say, saturated with the drug, which should prevent relapse. Then in rheumatism there is a natural tendency to remit the salicylates. With the fallen temperature the patient feels so much better that he thinks he ought not to take more medicine. He wants to get up and leave the hospital, and the medicine is often remitted too soon, and relapses ensue; noises in the ears, deafness, delirium, and some other temporary ills might occur, but he had never known any real danger or had any cause for anxiety. As soon as convalescence was fairly established he fed his patients up. As to the nature of rheumatism and the influence of the drug over it, there were indications that it might be analogous to malaria, and Dr. Maclagan's work showed that there was much to be said for this view, which was in reality the one that led Dr. Maclagan to the discovery of the value of salicylates. Before closing his remarks he wished to add that he had this week had two cases in St. Thomas' over which salicylate of soda had no influence, but this might be attributed, he thought, to the fact that they were perhaps not really cases of true rheumatic fever. In one the inflammation was confined to one knee, and he was now inclined to regard the case as one of synovitis only. The other was a case of hyperpyrexia, which proved speedily fatal.

Dr. Sidney Coupland said he had no doubt that the salicylates afforded us the best remedy, but he felt it was too much to call them specific, for they had no effect whatever on the cardiac part of the disease, by far the most important part. They reduce the fever and ease the pain, and this to such an extent that we now need seldom give opium. He gave smaller doses now than in his early cases, but he did not discontinue the medicine for a week or more after all symptoms had disappeared. The doses might be reduced, but the drug ought not to be omitted. He felt sure relapses were due to early getting up, the exposure thereby occurring, and to the solid food, which was permitted too early. In some cases of failure he had observed that there was a suspicion of gonorrhœa having lately occurred, and the salicylates were powerless in gonorrhœal rheumatism. He thought, too, he had noticed other diseases of the genito-urinary tract complicating obstinate cases, and he suggested it might be well to inquire how far inflammation of this membrane, however arising, might be associated with rheumatic attacks.

Professor Latham said he had no belief whatever in germs as the cause of rheumatism. If the disease were produced by microbes, how was it cured, as it used to be, by bleeding? Did the blood drawn reduce the number of organisms? and were we to conclude that a certain number of microbes produced rheumatism, but a few less were of no consequence? So purgatives, once in general use, would cure the disease. Did the evacuations carry away a few of the extra bacteria and leave their friends so reduced in numbers as to be powerless for harm?

Again, did opium put the bacteria to sleep? If we cut across the spinal cord we at once get excessively high temperature, but it is not held, surely, that the operation instantly develops swarms of bacteria which give rise immediately to hyperpyrexia. What was rheumatism? Why do we see from the same causes pleurisy, pneumonia, catarrhs, rheumatism, and other diseases. Could it be held that all are due to germs or organisms always surrounding us? The fact was, he felt that this doctrine of bacteria had been carried too far. The old lactic acid theory was much nearer the truth—indeed, very near it, as he had shown in recent publications. Cold applied to the surface modifies the circulation and therefore the nutrition of muscular tissue. What, then, is the relation of muscle, what that of albumen, to lactic acid? The chill affects the nutrition and the successive changes in which cyan-alcohol, glycocine, lactic acid, and uric acid appear are interfered with. By giving purgatives, very little animal food, and saturating the system with salicylic acid, not stopping short of producing toxic symptoms, we could inaugurate a new series of changes. Lactic acid had much to do with the disease, but was not the body on which salicylic acid directly acted. Rather it was excessive formation of glycocine and uric acid in the tissues that set up the symptoms, while the salicylic acid cured by combining with their antecedents and so preventing their formation. Salicylic acid would be converted into salicyluric acid. Amid some manifestations of impatience, Dr. Latham, who had provided no diagrams to assist in following his formulæ, concluded by saying that salicylic acid might prevent the formation of glycocholic acid, and consequently of glycocine, and thus prevent the formation of uric acid and lactic acid. His views would be published in extenso.

Dr. Prosser James said he would not attempt to follow Professor Latham's interesting views, which required study at leisure, but begged to recall the attention of the Section to the subject announced for the debate, which was the treatment [applause] of acute rheumatism. He had, he said, too much reason to feel the skepticism attributed to and confessed by the opener of the debate, Dr. Bristowe, but he was not altogether devoid of faith in drugs, and had himself derived from them very great relief.

Dr. James said he had had a very painful personal experience of various methods of treating acute rheumatism, for he had had several severe attacks, and as a sequel he now suffered from osteo-arthritis. Some authorities, indeed, held there was no connection between the acute and chronic diseases mentioned. His own case pointed in the other direction. No question as to the diagnosis could arise. He had the happiness of numbering among his friends the survivors of his former teachers, most of his colleagues, and many other eminent physicians, whose sympathy and desire to help had been as welcome, and perhaps as effectual, as their advice. They were of one opinion as to the nature of the early attacks. Since the chronic disease succeeded he had also experienced the usual relapses. He had been under treatment by alkalies, by salines, by opiates, by quinine, by the salicyl compounds, by blistering, by rest in bed *without* peppermint-water, and so on, and would just state his experience of some of the remedies. As to nitrate of potash and other salines, he had been unable to satisfy himself that these drugs exercised any influence over the progress or duration of the disease, and the same remark applied to some other modes of treatment which had been advocated.

Passing to treatment which gave him relief, he spoke first of opium, and commended small doses of morphia—preferably by subcutaneous injections. Only just enough to numb the pain—to render it, as it might be said, bearable—should be given, and then it could be continued for some time, if required, without any need for increasing the dose. It was not necessary to narcotize the patient. When the pain abated, sleep often ensued. Small doses did not disturb the functions, nor create a desire for repetition, but they exercised a most soothing influence over the nervous system which reduced the intense agony to a more endurable pain.

Dr. James next spoke of alkalies. In his first attack, which occurred at the time when the alkaline method was most in favor, the treatment was begun with alkalies, administered so as to speedily render the urine neutral. This neutrality was maintained for several days. As no effect was produced on the disease, no relief to pain or any other symptom, opiates were given, and the amount of alkalies reduced. Speedy return of excessive acidity and some increase of fever induced his advisers to urge fuller alkaline treatment. This was accordingly pushed to what was deemed the limit of safety, after which small doses were given from time to time on the appearance of excess of uric acid or urates. The impression produced was just that which he had always entertained—that alkalies were most useful at the commencement of an attack, that they should not be pressed beyond the point of neutralizing the urine, that the neutrality might be maintained with advantage for a day or two, and that then alkalies had accomplished all they could do, except as occasional correctives. Employed in this way he had no fear of their producing anæmia or debility. Even in chronic rheumatism small doses of alkalies at intervals may be called for to correct digestion or for other purposes. Perhaps the best alkali for the purpose was lithia, the dose being small and the solubility of its salts great.

The late Dr. Billings taught that rheumatism is a neurosis, and should be treated by quinine, and watched with much interest the effect in his case (Dr. J.'s), as he had himself suffered in the same way, and derived great benefit from quinine. He kept up a continual state of cinchonism, consuming 27 grains daily.

Experience with Electrolysis in Dermatological Practice.

George H. Rohe, M.D., Professor of Hygiene and Clinical Dermatology, College of Physicians and Surgeons, Baltimore, contributes the following paper to the *Philadelphia Medical Times:*

The introduction of electrolysis into dermatological practice is due to Dr. W. A. Hardaway, of St. Louis, and Dr. H. G. Piffard, of New York, who both began the use of this method about the same time. It was at first employed altogether for the removal of superfluous hairs, but within the last five or six years its use has been much extended. It is now frequently used for destruction of warts and other small epithelial growths, pigmentary and vascular nævi, small tumors of the sebaceous glands, telangiectases and similar affections. In this paper I purpose to detail some personal experience with the method.

Electrolysis has been most frequently used for the permanent removal of superfluous hairs. In addition to the appliances to be presently mentioned, the operator who attempts to treat a case of hirsuties by this method needs a steady hand, clear vision, and above all an abundant stock of patience. Without these three requisites, no one should undertake the treatment of such cases.

The battery used should furnish an evenly-acting current of moderate power. I have used both the Flemming and McIntosh batteries with comfort, and with satisfactory results. For the last two years I have employed the latter exclusively, using a current of from six to twelve cells.

The electrodes consist of one ordinary sponge electrode attached to the positive pole and held in the patient's hand. This is used to make and break the circuit. The electrode attached to the negative pole consists of a fine needle in an insulated handle. The handle I now use is of wood, with a brass rod passing through its centre and small binding screws at each end for the purpose of holding the needle and of fastening the handle to the conducting wire-cord.

The handle is made pretty thick, so as to enable it to be held firmly. A very thin ivory handle, which I formerly used, can not be held as steadily as a thicker one.

The best needle I have used is one made by A. M. Leslie & Co., of St. Louis, for my friend Dr. Hardaway, of that city. It is made of a composition of platinum and iridium; is very fine, smooth and flexible, and does not break easily. I have tried the finest obtainable steel needles and dentists' and jewelers' "bristles," but with much less satisfaction than the platinum-iridium needle referred to.

A chair with a head-rest—an ordinary dentist's or oculist's chair—is absolutely essential to steady the head of the patient during the operation. For the greater comfort of both operator and patient, a reclining chair which can be fixed at any angle is decidedly better.

To proceed with the operation: The patient is placed before a good light—avoiding direct sunlight unless modified by frosted glass—and directed to take hold of the handle of the sponge electrode, the sponge, of course, having been previously moistened. The operator then sits a little in front of and to the right of the patient, and takes the needle electrode in his right hand, holding a pair of tweezers with flat, narrow jaws in his left. The needle is then gently insinuated into a follicle by the side of the hair until the bottom of the follicle is reached. This is manifested by a slight resistance to the onward passage of the needle. The patient is then directed to touch the sponge with the palm of the other hand, thus closing the circuit. The current will immediately pass and the electrolytic action be made manifest by a little frothing around the needle. In some skins also a little wheal will be raised about the follicle. In from twenty to forty seconds the hair can be extracted with tweezers without the slightest resistance or pain. If the hair does not come away with perfect ease, the papilla has not been destroyed, and the needle should be permitted to remain and the current to pass a little longer. The current is broken by removing the hand from the sponge electrode. This gives less pain than if the current is closed and opened with the needle.

If the hairs are very close together, they should not all be removed at the same time. The hairs should be picked out here and there; otherwise the points of irritation will be in too close proximity, and, if sufficiently intense, may produce small areas of sloughing and leave scars. If the operation is properly performed, no visible scars should remain.

A sitting may last from fifteen to thirty minutes. Very few operators can extend it beyond the latter time. The sittings may be repeated every other day, or, in cases where time is important, every day. After the operation a lotion containing a drachm of oxide of zinc and two drachms of glycerine in two ounces of rose-water should be applied. It covers the redness of the skin and relieves the irritation, which is sometimes considerable.

The following brief notes are outlines of cases in which I have used the electrolytic method:

Case 1. My first case of hirsuties was in a lady, aged 25, blonde, and a school-teacher by occupation. She was referred to me by my friend Dr. Wilmer Brinton, to whom she had applied for relief. Her chin was covered with a pretty thick growth of stout hairs.

The patient was under treatment about six months, during which time I removed no less than fifteen hundred hairs. In this case I frequently employed a current of twelve to fifteen cells, which I am now convinced was too strong. It not only gives unnecessary pain, but is liable to produce some destruction of the peri-follicular tissues and leave small scars. About one-third of the hairs returned after the first operation. The sittings were repeated at intervals, about thirty operations being required to complete the cure.

Case 2. The second case was a married lady, brunette, 30 years of age. She had a truly formidable beard upon her chin. In addition, she had also a decidedly noticeable growth of hair upon her upper lip. The greater number of hairs were thick and black. These were removed with ease, few of them returning after the first operation. There was, however, quite a large number of long, fine, light-colored hairs, which gave considerable trouble on account of the difficulty of entering the follicle with the needle. This patient has been under treatment nearly two years, and during that time over three thousand hairs have been removed from her face. She still returns about once in every two months, for the purpose of having a few scattering hairs removed.

The destruction of the hairs under the chin in this case was especially difficult, on account of the tortuosity of the follicles, which rendered it almost impossible to reach the papilla with the point of the needle. The flexible needle of platinum and iridium renders the process much easier, however, than it was at first, when I used a steel needle. The skin of this patient is exceedingly sensitive, and a current of eight cells is the extreme limit of strength which can be used with comfort.

Case 3. This was a widow, blonde, aged 37. She had two small tufts of thick hairs growing on the chin. There were about fifty hairs, which were removed at one sitting. About fifteen returned, and were removed at a second sitting. Three months later she returned again with five moderate-sized hairs, which were then destroyed. She has had no return of any growth for upward of a year.

Case 4. A blonde, aged 20, who had a very profuse growth of fine, light-colored hairs upon the chin and cheeks. The hairs were difficult to remove, and about thirty per cent. have returned. The patient has become discouraged and discontinued the treatment after the first series of sittings. About twelve hundred hairs were removed in this case.

Case 5. A brunette, teacher, 24 years of age, referred to me by my friend, Dr. Chas. F. Percivall. She had two very dark, pigmented nævi on the face, which were thickly covered with stout black hairs. The hairs were destroyed by electrolysis, and the nævi disappeared also, leaving a flexible, white, flat scar. There was no ulceration or suppuration following the operation, although the hairs were close together and all were removed at one sitting.

Case 6. This patient was a drug clerk, aged 23, who had a number of short, thick, black hairs growing upon his nose. In six sittings he was entirely freed from this unwelcome growth. There is no evidence whatever of any scar upon the smooth integument covering the nose. The openings of the sebaceous glands seem to be entirely normal. In this case the follicles were wide and perfectly straight, and, as a consequence, little difficulty was met in destroying the hairs. A few of them returned, which were destroyed at subsequent sittings.

Case 7. *Pigmented Nævi.*—A medical student, aged 20, had several brown, elevated nævi upon the face. One, about the size of a split pea, upon the upper lip, gave him considerable annoyance on account of the disfigurement it occasioned. The growth was transfixed by a fine steel needle (a jeweler's bristle), and the current from eight cells passed about a minute. The needle was then withdrawn and inserted at right angles to the former puncture and the current again passed. This procedure was adopted with all the other growths upon the face. On the following day each spot operated on was covered by a dry, brownish scab, which fell off on the third day. Two months after the operation, the site of the nævi could no longer be discovered. Absolutely no cicatrix was produced.

Case 8. *Papillary and Epithelial New Formations.*—A young man, aged 23, with gonorrhœal warts situated on the corona glandis and on the mucous surface of the prepuce. They had been previously cut off with scissors, but had returned. Cauterization with nitric acid was proposed to him, but declined on account of the pain involved. Electrolysis was entirely effective in removing them in two sittings. The growths have not returned.

Case 9. A professional friend, aged 50, with a branching, rapidly-growing wart on the upper lip. It was frequently irritated in shaving. Contemplating the possibility of the growth becoming malignant if subjected to constant irritation, he applied to me to have it removed. By means of electrolysis, the growth being transfixed by the needle in several directions, it was entirely destroyed in two sittings. No scar was left to mark the site of the growth. The pain was slight.

Case 10. *Sebaceous Cysts.*—A medical man, aged 38, with an enlarged sebaceous follicle on the nose, which frequently became as large as a small pea. Two sittings, during which the needle was inserted into the gland-duct as well as passed through the base of the little tumor in several directions, resulted in its total disappearance.

Dr. Hardaway speaks highly of this method in the treatment of the small retention-cysts called milium. It promises to be a valuable substitute for excision in the case of small wens, especially about the face.

Case 11. *Acne Rosacea.*—An aggravated case of acne rosacea in a man 36 years of age. The usual treatment was followed for the acne and the diffused redness of the skin. Visible vessels were pierced with the electrolytic needle and so obliterated. The patient, after obliteration of all the enlarged vessels, returned to his home in Nebraska much improved. In a letter recently received he asserts continual progress toward recovery.

Case 12. *Ingrowing Eyelashes.*—Michel, of St. Louis, gave the first impulse to the introduction of electrolysis in dermatology by his successful use of the method in removing ingrowing eyelashes. I have had one case of this annoying trouble, in which the mal-directed hairs were destroyed by means of the electrolytic needle. In order to diminish the pain produced by the operation, I used a five per cent. solution of cocaine with success. I have on several occasions used the cocaine on the skin when removing the hairs from an especially sensitive area, such as the cheek and angle of the jaw, but without producing any noticeable reduction of sensibility.

Case 13. *Vascular Nævi.*—My friend, Dr. W. A. Hardaway, has good success, as demonstrated to me by a case under his care, with electrolysis for the destruction of vascular nævi (port-wine mark of the skin). In the only case in which I have had opportunity to try it since seeing his case, the success was only moderately good. Where these nævi are small, and especially in young children, careful excision, followed by a plastic operation, promises excellent results. In adults, however, electrolysis deserves a patient trial in the treatment of this deformity.

The above constitutes my experience with this method, which I believe is destined to prove its usefulness in a great many affections, of minor importance, perhaps, so far as their effect on the duration of life is concerned, but which nevertheless are very annoying to those who are afflicted with them. To many women the removal of a beard or other disfiguring blemish is of as much importance as the cure of a pneumonia or a chronic internal disease which may tend to shorten life.

Therapeutical Notes.

An excellent local application for the local relief of neuralgia and gout is prepared by rubbing up together equal parts of thymol, menthol, camphor, and chloral.

VAPOR AMYL NITRITIS.

℞.	Amyl nitritis min., ...	viii.
	Spts. vini. rect	ʒii.

A teaspoonful in a pint of water at 100° F. For each inhalation, very valuable in some cases of asthma and spasm of the glottis.

A GARGLE FOR CHRONIC PHARYNGITIS.

The *Union Medicale* attributes the following formula to Bamberger:—

Chloride of ammonia,	75 grains.
Honey of roses,	750 "
Water,	12½ ounces.

To be used several times a day, together with mustard foot-baths, the use of tobacco being prohibited.—*N. Y. Med. Jour.*

AN EXCELLENT COUNTER-IRRITANT.

Dr. Ellwood in *New England Medical Monthly:*—

The following counter-irritant in certain classes of cases I have found very beneficial.

℞.	Olei tiglii,	ʒ j.	
	Ether sulph.,	ʒ ij.	
	Tr. iodi.,	ʒ v.	M. S.

This excellent counter-irritant is applicable where it is not necessary to produce too much effect; particularly for children.

In cases of *impotence*, Prof. Bartholow speaks with confidence of:—

℞.	Ext. cannabis indicæ,	gr. x.	
	Ergotin (aq. ex.)	℈ ij.	
	Ext. nucis vomicæ,	gr. x.	*M.*

Ft. pil. No. xx.

Sig.—One, morning and evening.

—*The College and Clinical Record.*

BUBOES.

Taylor recommends the following as an abortive injection for buboes:

℞.	Cript. carbol. acid,	gr. vii.
	Distilled water,	℥i
	Alcohol q. s. to dissolve.	

10 to 20 drops are injected deep into the bubo, whether it be specific or inflammatory. According to the author, pain and inflammation rapidly disappear.—*L' Union Medicale.*

A FORMULA FOR RING-WORM.

Dr. Henry Browne gives it to us in the *British Med. Jour.*

℞.	Sodæ hyposulphitis,	ʒj.
	Solve in aqua	fl. ℥viij.
	Et adde acidi hydrochlorici,	fl. ʒj.

For outward use only.

The use of this lotion, as a water-dressing covered with oiled silk, and accompanied by daily washing in soft soap and water, has proved perfectly satisfactory.

Dr. Mulherm, of Detroit, uses the following in asthma, and reports success:

℞.	Ammonia chloridii,	ʒiij.
	Spts. æth. nitrosii,	ʒiij.
	Syr. ipecacuhannæ,	℥j.
	Etheris sulphate,	ʒiij.
	Ext. glycyrrhizæ,	℥vj.

ʒ *t. i. d.*

An excellent prescription in asthma and capillary bronchitis.—*Medical Summary*.

Diet in Disease.

BY H. ARNOTT, M.D., LONDON.

(Read before the Ontario Medical Association, June, 1885).

Our food may be said to consist chiefly of albumen, starch, fat, and sugar, and it would seem evident that the first principles of dietetics should be the knowledge when to increase or decrease any of these elements. A great deal has been done in this line, but much remains to be known. The effects of diet in the treatment of diabetes, Bright's disease, scorbutus, etc., prompts the hope that the treatment of disease by a skillful regulation of the diet may be still further extended, and that a corresponding decrease in the use of powerful drugs will ensue. If we inquire what becomes of any excess of food taken into the system beyond its requirements, we find that if an excess of fatty or starchy food be taken, it may be deposited as fat. If too much saccharine matter be indulged in, it may be deposited as fat, or carried off as a temporary glycosuria; but an excess of albumen has no such outlet. It demands a plentiful supply of oxygen to fit it for elimination, and if, through sedentary habits, diseased lungs, or other cause, this be not forthcoming, the blood is flooded with offensive matters which all the emunctories of the body are not sufficient to remove. The breath from the lungs, under such circumstances, has a heavy odor, the skin becomes dark-colored, and the conjunctiva yellow or muddy, with all its vessels engorged. The Prophet Daniel long ago discovered these truths, and it may be that if vegetarians had set themselves to discover the precise conditions calling for such a diet, rather than going to an absurd extreme, they might have conferred a real benefit on humanity.

I shall now, as shortly as possible, mention a few clinical facts that seem to support the theory that too much albuminoid food sometimes produces disease.

My attention was forcibly called to this matter when studying certain forms of hemicrania. Some of these, I noticed, were completely cured by a diet from which albuminoid food was almost excluded, and instead of the patients running down and becoming weak, in several instances they gained in weight and strength. In one instance the patient gained fourteen pounds in a short time after the change of diet. Of course, vigorous outdoor exercise might have answered the same purpose, but that is a prescription which has various obvious objections.

In spasmodic asthma and bronchitis, I think there is no therapeutic measure that will finally give greater satisfaction than lessening the amount of albuminoid food consumed. These affections are sometimes curable by this measure alone, even in cases where the hereditary tendency thereto is distinctly marked. I might cite several such cases, but let one suffice. Mr. S—— was very asthmatic, as were also two of his brothers. His children, when quite young, were severely troubled with spasmodic bronchitis, and I was frequently summoned in the night to some of them suffering from that affection. This went on for two or three years, and I often wondered if it must go on during their whole lives. In truth, it had gone on during the greater part of the life of the father, who was now a pretty old man. Finally, I requested them to try the experiment of feeding their children chiefly on milk and cereals, and from that time I was hardly ever summoned to any of them suffering from a similar cause.

Sleeplessness, when accompanied with a dark skin, tense arteries, and a deposit of lithates in the urine, is very much benefited by this measure. Of course the opposite class of cases are met with, where an exhausted system calls for rest and generous nourishment, but properly selected cases will be found to yield very satisfactory results.

In Bright's disease, whether acute or chronic, the diet should not include albuminoid food. The reasons for this are so obvious that no further reference need be made to it.

Foul breath, not due to any local affection, will frequently be rapidly cured by this diet without the aid of medicine. Not long ago, a youg lady, with a vigorous appetite for animal food, and who had become a nuisance to the rest of the family on account of her foul breath, was entirely cured by this simple means.

I might easily extend my list of diseases, and relate more cases that were cured in this way after medicinal treatment had failed, but enough has been said to show you the drift of my opinions on this important subject.

Just this very morning, a young man, an asthmatic patient of mine, called to tell me that one month of this diet had done more for him than all the medicine he ever took; that during that month he had only tasted meat once, and that night he had symptoms of return of his old trouble.

There is an absurd notion prevalent that a person will get weak under this regime; so far is this from being true, that I have had patients gain several pounds in weight. Get weak, indeed, on a diet that has produced so many splendid Scotchmen and Irishmen, and enables the Arab to travel from 50 to 60 miles a day, and undergo the greatest hardship!

Albuminoid food is a true stimulant, causing increased vigor and power of endurance, and the want of it must certainly be felt by the patient, but we must not take sensations for reality, nor the patient's feelings as our guide in prescription. Nor must we forget that, if more coal is put into the furnace than is completely burned, the grating will become choked with too much waste.

Membranous Croup; Diphtheritic Croup; True Croup.

THE April number of *The American Journal of the Medical Sciences* contains an elaborate clinical study of true croup from the pen of Dr. J. Lewis Smith, of New York. He fully considers the etiology, anatomical characters, diagnosis, and treatment. Whatever the cause, the anatomical characters, the clinical history, and the required treatment are so nearly identical that attempts to differentiate the disease when produced by other agencies than diphtheria from that due to diphtheria, have proved futile and unsatisfactory in localities where diphtheria occurs, except in a few instances, as, for example, when croup has been manifestly caused by swallowing or inhaling some irritating agent.

Dr. Smith holds that inflammation of the laryngeal and tracheal surface, whatever its cause, whenever it reaches a certain grade of severity, may be attended by the exudation of fibrin and the formation of a pseudo-membrane, but such a result more frequently occurs in the inflammation caused by diphtheria than in that produced by other agencies. In diphtheria a moderate laryngo-tracheitis is attended by the pseudo-membranous formation. Dr. Smith's experience leads him to believe that not more than one in eight cases of croup has recovered by medicinal treatment which began in the first week of diphtheria, and in which the symptoms were so pronounced as to indicate more or less laryngeal stenosis. The exudation in the first week of diphtheria, or in its active period, occurs so rapidly, and in such large quantity, that no one of the medicinal agents or modes of treatment, which physicians commonly prescribe, is sufficiently prompt in its action to prevent the formation of the pseudo-membrane to an extent that soon endangers life.

Croup occurring in the second or third week of diphtheria, since it is attended by less abundant and less rapid exudation than when it occurs during the acute stage, can be more successfully treated under the persevering use of solvent inhalations, and a larger proportion than one in eight, perhaps one in three, recovers by the early and continuous or almost continuous use of inhalations.

Still the mortality is so large, and the suffering so great in croup, at whatever stage of diphtheria it occurs, that we can not rely on the slow action of medicines or inhalations, and surgical treatment is, in most instances, required to diminish the suffering, and afford the best chances for saving life.

Under the head of medicinal treatment he strongly recommends trypsine as a solvent of false membrane. Of calomel, he says: The experience of many physicians justifies the belief that mercury and especially calomel employed within certain limits in the commencement of a pseudomembranous inflammation does exert some controlling action on this disease. That it did much harm formerly when physicians prescribed it as freely as we now employ potassium chlorate, to the extent in many instances of increasing the cachexia and causing mercurialism, should not deter from its judicious use. In the ordinary form of diphtheria he would not advise the use of calomel, nor would he limit its employment to one or two doses of six to ten grains in the commencement of the disease in robust cases. But in croup, since the danger is not from the cachexia or blood-poisoning so much as from the laryngeal stenosis, which is apt to develop rapidly, that medicine is indicated, and should be prescribed, which most strongly retards the exudative process, and aids in liquefying and removing the pseudo-membrane; provided that it produce no deleterious effect which renders its use inadmissible. Hence it is proper to prescribe calomel in larger doses and for a longer time in the treatment of croup, than in other forms of membranous inflammation, if it fulfill the indication, as it seems to in a measure. In his own practice, however, calomel is not prescribed after the first or second day, since Dr. Smith prefers the use of other remedial measures, which are efficient, and are less likely to produce injurious effects. The subject of surgical treatment is also fully discussed, and Dr. Smith holds that we can claim for tracheotomy, judiciously performed, and at a sufficiently early stage, the cure of one in every three patients on the average.

The Emergencies of Surgery—Injuries of Head and Face.

THE following is the first of a course of lectures delivered at the Meath Hospital and County Dublin Infirmary by Lambert Hepenstal Ormsby, M. D., F. R. C. S.:

Injuries of the head are at times followed by the most alarming symptoms, even when the appearance and size of the injury are of the most apparently trivial character The patient after a fall or blow may seem to recover the shock, and to suffer no bad effects. However, in the course of a few hours the patient may become comatose. Mr. Guthrie mentions on this subject: "Injuries of the head affecting the brain are difficult of diagnosis, doubtful in their character, treacherous in their course, and, for the most part, fatal in their results." It must, however, be borne in mind that the truth of this observation does not always follow, for in some exceptional cases, no matter how severe the injury may appear, the patient may recover without a bad symptom, and in the whole course of medical practice no case presents itself to the surgeon ready for any emergency so important as these forms of injury. No hasty diagnosis should be formed, no heroic line of treatment adopted more than an anxious, careful attention to each symptom as it arises. Mr. Liston has also stated with reference to this subject, "that wounds of the head of the most trivial character are not to be despised, or of the most severe not to be despaired of."

Contusion of the scalp may result from falls or blows from blunt instruments. The immediate effect of such an injury is great swelling, tension and pain; the integument over the spot becomes glazed and tender—in a few hours it may become discolored by extravasation of blood into the subcutaneous tissue. Children are very liable to such injuries by falling off chairs or tripping when at play and their heads coming in contact with some hard substance. Anxious mothers and nurses are in the habit of applying a variety of nursery remedies for such, to keep down the swelling and prevent the skin turning black.

Treatment.—Immediately after the injury the local application of a small piece of ice, or the application of a flat piece of steel or iron, or a flat stone. Almond oil or camphorated oil is also a favorite remedy to apply to the part at once. The application of vinegar and water or a spirit lotion on lint is also most useful. Where the skin is not broken, cleaning out the bowels with a mild saline purge, a non-stimulating diet and perfect quietness would be about all that need be done in slight cases. In severe contusions, where a large blood tumor immediately forms, the diagnosis and treatment may be more perplexing, for it must be remembered that this has frequently been mistaken for a depressed fracture of the skull, and *vice versa*. In general terms the diagnosis can be made out pretty well by the history of the case. In a bloody tumor of the scalp, if it is carefully examined with the finger, it is found that there is a circumscribed tumor present, with a well-defined firm margin, and in the center of which the finger, as it were, sinks into a soft, depressed center. In a fracture with depression the circular margin is not at all so apparent, and the depression is hard instead of soft to the touch; and if the depression has existed for any time, it is most probable symptoms of compression will be present.

Treatment for severe contusions consists in the application of cold evaporating lotions, to cause the extravasated blood to be absorbed. In other cases suppuration may take place in the tumor, and when this is evident an incision must be made, and a free exit given to the matter. Erysipelas and diffuse abscess of the scalp may occasionally follow such injuries, whether trivial or severe, together with inflammation of the brain and its membranes.

Pott's puffy tumor indicates the presence of a collection of pus situated between the dura mater and the cranium, with a puffy and swollen condition of the epicranial aponeurosis following a severe blow or contusion. When this condition is present probably slight symptoms of compression will begin to make their appearance.

Treatment.—Keep the patient in bed in a dark room on light and non-stimulating diet. When evidence of compression appears the operation of trephining over the seat of the injury to give exit to the matter should be performed without delay.

Wounds of the scalp are of common occurrence, whether the result of falls or blows with blunt or sharp-cutting weapons. As a rule these wounds bleed very profusely; in some instances the smaller branches of the temporal and occipital arteries are severed, and require to be commanded either by pressure, ligature, torsion, or acupressure needle. A portion of the scalp may be considerably torn and partially detached, as after mill accidents or railway smashes.

Treatment.—In a clean-cut incised wound remove all dirt or foreign matter that may have found its way into the wound. Cut the hair very close about the edge of the wound, and evenly approximate its edges with good adhesive plaster. Do not apply sutures is an old maxim you are expected to follow. Some part of the scalp may slough, however. This will be repaired by healthy granulating tissue. Abscesses may form, which must be evacuated as soon as recognized. All hemorrhage stopped by pressure or other means; edges of wound brought evenly together; the patient kept quiet; the bowels kept moderately open by saline purges, and light, non-stimulating diet ordered for the first few days—comprises nearly all that need be done in a case of the kind.

Erysipelas of the Scalp.—A complication that occasionally arises after a contusion, a punctured or incised scalp. Much depends on the state and constitution of the patient at the time of the accident, as well as the sanitary and hygienic conditions, which may be at fault. The premonitory symptoms of erysipelas coming on are as follows: Locally, wound becomes glazed and dry, no pus appears on edges; a deep red blush over the part is very apparent; also tingling, heat and swelling, giving rise to much pain. Constitutionally, we have a high temperature, a dry furred tongue, a quick pulse, loss of appetite, high-colored and scanty urine, headache.

Treatment.—A linseed poultice should be applied if the swelling is very great with a swollen and puffy condition of the epicranial aponeurosis. Incisions should be made with caution, to relieve tension, and warm fomentations. The bowels should be kept clear, and iron, quinine, opium, and strong beef tea administered internally.

Fractures of the skull.—Of this we have many varieties. Generally, however, it is divided into fracture of the vertex and fracture of the base. Of the vault, or vertex, we have *depressed*, a small portion of bone is driven inward, and *non-depressed*, where there is no separation or depression, but just simple linear fissure of the cranial bones in one or more directions. The outer table may be furrowed or grazed by the passage of a ball across the skull. Much of the scalp must necessarily be torn and separated from the bone, which will in all probability produce necrosis, sloughing, abscess, ulceration, and sympathetic inflammation of brain and membranes.

Treatment.—The same is adopted in other head injuries. Wound treated on general principles. Contusion of the scalp with depressed fracture without a wound. This kind of an injury may puzzle one what to do. But the general rule in surgery is to adopt the following course: Where you have no wound, no symptom of compression, but with depression, wait for symptoms to arise before attempting to trephine or elevate, as before doing anything you must necessarily convert a simple fracture into a compound. 2. Where you have a wound in the scalp communicating with the seat of depressed fracture, elevate or trephine, whether you have symptoms of compression or not. Sir William McCormac mentions on this subject what I may be allowed to quote with advantage: "One point regarding which opinions vary somewhat is respecting the treatment of depressed fracture unaccompanied by symptoms and with an external wound. Where there is no wound he would be a hardy operator who should cut down upon a depression in the skull in the absence of any symptom of compression. When there is a wound, however, the case is different; but even here I question much if the surgeon ought to do more than simply remove such loose fragments as can readily be got at."

Fracture of one table singly without the other is sometimes spoken of as regards the inner table, but its frequency is a matter of considerable doubt, and Guthrie mentions he has never seen it occur without positive marks of injury on the bone of pericranium.

Treatment for fractures of all parts of the vertex—it must be remembered, that as regards the result, recovery is far more likely to occur than those of the base. If it is merely a linear fracture, the patient should be kept quiet, cold water dressing applied. Sometimes profuse suppuration follows, when it is advisable to apply a light linseed-meal poultice. If a portion of bone has been driven in on the brain, together with the missile or bullet that produced the fracture, an attempt should be made to remove it. The fragments sometimes get displaced for some little distance under the cranium, away from the opening, in which case the removal is difficult, and any undue manipulation or exploring may drive the foreign body farther in on the brain, to be followed by greater injury and fatal cerebral mischief. By gentle manipulation with a probe, elevator and forceps, it is sometimes easy to remove the fragments. And in all cases elevation should be adopted and practiced in preference to trephining where feasible, as the operation is much more simple and much less dangerous to the patient. The operation of elevation is thus performed. If the wound is not large enough it may be increased by incision with a scalpel. The epicranial aponeurosis should be gently raised with a forceps, so as to see clearly the amount of depression and the line of fracture. A probe may then be passed between the fissure so as to ascertain whether the depressed portion is movable or not. If it is, the elevator is then gently insinuated in the fissure, and the finger, placed flat at edge of wound, acts as a fulcrum for the elevator or lever to work on. If a sharp point of a spicula prevents the elevator being used, this portion may be sawn through with a Hey's saw. After removal all hemorrhage must be arrested, which generally wells up out of the wound, cold water dressing applied, and the patient carefully watched. Suppose this operation of elevation can not be adopted, he must then have recourse to the more severe form of procedure, viz: the operation of trephining.

Should Arsenic be Administered to Nursing Women?

At a recent meeting of the Société de Médecine Légale, in Paris, M. Brouardel reported a very interesting case bearing upon this question. He was called upon to say whether an infant of twelve months could be poisoned by the milk of its mother when she had taken a considerable quantity of arsenic.

In the case in question, a man who had some trouble with his wife and mother-in-law was suspected of having given arsenic to them. Both were made ill, and the child died with symptoms of cholerine a few days afterward. As the weather was quite warm, however, it was not suspected that the death of the child was due to any other cause than a severe case of summer diarrhœa. But when the wife and mother-in-law were again attacked, with the same severe symptoms in November, the husband was suspected; and the wife claimed to have found a package containing a white powder in her husband's pocket.

The case being then submitted to Brouardel, he exhumed the body of the child, which had been buried six months previously. It was completely transformed into adipocere, so that it was impossible to separate the viscera from the other parts. It was therefore subjected to analysis *en bloc.* It weighed about 2.50 kilogrammes, and contained 5 milligrammes of arsenic. It was impossible that this arsenic could have been derived from the cloths enveloping the cadaver or from the soil in the vicinity of the grave.

The next question was to determine whether arsenic is eliminated by the milk, and in what proportions. M. Gabriel Bouchet, for this purpose, administered Fowler's solution, in doses of gtt. ij—xij, to a number of wet nurses, and found that the milk afterward contained a proportionately large quantity of arsenic. When, for example, the woman had taken 8 milligrammes of arsenic for six days, 100 grammes of milk contained 1 milligramme of arsenic. With these doses of Fowler's solution neither the nurses nor the children felt any bad effects from the experiments. In order to determine whether the effects would have been the same had the arsenic been administered in one large dose, experiments were made on animals. The results were not very conclusive, however, as the susceptibility of animals to arsenic is very variable. But it was conclusively shown that arsenic is constantly eliminated by the lacteal glands; whence it seems that it should not be administered to nursing women—or only with the greatest care.

Microscopy.

New Microscope Objectives.

BY ERNST GUNDLACH, ROCHESTER, N. Y.

SINCE the introduction by Carl Zeiss, of Jena, of his famous four-system, homogeneous objectives, which, in most successful harmony, proved to combine all the merits of the then ideal objective, all the able opticians of the world have endeavored, with more or less success, to add their share in creating a new era in the production of microscopic objectives; and I may be permitted to flatter myself with having been highly successful in the endeavor. My combined studies and experiments in this new field, however, soon led me to appreciate the importance of the fact, that the great superiority of this new style of objective over the old is due to the homogeneous immersion only in a subordinate degree; but that the four-system principle is the important cause of the improvement. This, and the unfortunate fact that, after much research, no suitable homogeneous medium has been discovered to replace the most inconvenient cedar oil or the different mixtures that have successively come into use, led me to think whether it would not be possible to construct a water immersion, or even a dry-working, four-system objective of so high optical qualities as would meet the demand and satisfy the modern scientific requirements. In working the matter up, I found that the angular aperture would have to be considerably reduced in order to preserve a suitable working distance. This reduction would, of course, involve a corresponding reduction of the resolving power; but the correction of the observations can be made so near to that of the homogeneous objective, as to leave no perceptible difference in the definition. Although I had the formula ready about two years ago, circumstances postponed the execution of the work until recently, when the first objective of this kind was completed. This objective is a $\frac{1}{10}$, having a numerical aperture of 1.25, and works through a cover $\frac{1}{75}$ inch in thickness.

But long before I had the satisfaction to have the first look through a four-system, I conceived the idea that even three-system objectives could be made, both water immersion and dry-working, of much improved quality, by the application of my new plan for an improved construction of telescope objectives, described in a paper which I read before the American Society of Microscopists, at their meeting in Rochester, last year; the brief principle of which is, to give the crown-glass lens such a form as to have for itself the least possible spherical aberration, and then correct this minimum by the flint-glass lens. Such objectives can be made at the usual moderate prices of the old water immersion and dry-working objectives, and, in their improved form, will meet the modern requirements of all regular scientific work; while the four-system takes its place as the highest possible, without regard to expense. Such three-system objectives, both water immersion and dry-working, I have constructed with great success, and am now prepared to make them of any desired power.

Gleanings.

TRANSPLANTATION OF THE EYE OF A RABBIT TO MAN.—At the Society of Biology of Paris, M. Javal read a note from M. Chibret, relating the experiment he had presented before the Academy of Medicine. It was a case of transplantation of the eye of a rabbit to replace the eye of a young girl. The sutures were removed on the fifth day; after the tenth day, the cornea showed evident sensibility. But this did not last, and the eye necrosed. M. Javal laid great stress on the importance of the fact that the sensibility of the cornea lasted several days.—*Journal de Medicine de Paris.* R. Z.

COCAINE IN HAY FEVER.—The therapeutical uses of cocaine are so numerous that the value of this wonderful remedy seems only beginning to be appreciated. Almost daily we hear of some disease or combination of symptoms in which it has been tried for the first time and has answered beyond expectation. It appears strange that so intractable a complaint as hay fever should be amenable to its influence, and yet such is the case. The account given by Mr. Watson, of the Westminster Hospital, of his sufferings and subsequent cure by tabloids of cocaine, is too circumstantial to admit of doubt, even had we not received confirmatory evidence from many sources. It has been objected on theoretical grounds that cocaine must of necessity be inoperative, or, at all events, of comparatively little use, in those cases in which symptoms of an asthmatic type prevail. Curiously enough, however, it has been shown that cocaine, when applied to the mucous membrane of the nostrils, has the power of allaying even this spasm. The observation, too, is not new; for many months ago Dr. Bosworth, Professor of Laryngology at Bellevue Hospital Medical College, published a detailed account of a case of spasmodic asthma completely cured by cocaine. He pointed out at the time that many inveterate cases of asthma are dependent on, or at all events associated with, nasal disorders, the relief of which is promptly followed by an abatement of all the distressing symptoms. If this principle of associated treatment should be carried on in its integrity, it will be difficult to assign the limits of its sphere of action. —*The Lancet*, July 18, 1885.

SUGGESTIONS IN REGARD TO THE USE OF MINERAL EARTH IN THE TREATMENT OF WOUNDS.—In the treatment of many varieties of wounds to the cutaneous and muscular tissues *Mineral Earth* will be found a useful and convenient dressing. By virtue of its antiseptic and absorbent properties it keeps a wounded surface clean, protects it from external irritants, and invites a rapid repair of the tissue. To secure its full effect the surgeon should cover the surface with a layer of Earth-paste—made by thoroughly mixing the *Earth* and water together in an earthen basin until the paste is cohesive and pliable—say from one-quarter to one-half inch thick, until the entire surface is covered. Over this layer a piece of cheese-cloth is spread, and the cloth is next covered with a thin layer of the Earth-paste. Over this a layer of absorbent cotton, or a roller bandage may be applied to protect the Earth from injury after it has dried. In ordinary wounds the dressing may remain until soreness disappears and repair has been secured. In injuries of a severe nature, the dressing may be reapplied as often as every twenty-four or forty-eight hours. It is prepared by the National Pharmacy Association, Baltimore, Md.—*Miss. Val. Med. Mo.*

EFFECT ON OFFSPRING OF CONSANGUINEOUS MARRIAGES.—Dr. Charles F. Withington, of Boston, presented at the recent meeting of the Massachusetts Medical Society, a tabulated report of 108 consanguineous marriages. Four hundred and thirteen children were born from 103 couples. Considering as "unhealthy" even those having strabismus, those developing phthisis late in life, those who were below the average in intelligence or bodily vigor, and those who died in infancy, there remained 312 healthy children. There were 12 cases of deaf-mutism, 7 of insanity, 13 of idiocy and 15 of phthisis. In 17 cases one or both of the parents were themselves descended from a consanguineous union. 15 were fertile, producing 68 children, of whom 48 were healthy. The view was announced that the evil results were due to the operation of the ordinary laws of morbid inheritance, and that consanguinity *ipso facto* had no influence either for good or evil.—*N. Y. Med. Journal.*

PARALDEHYDE IN PLACE OF CHLORAL.—A correspondent of the *Lancet* states he has used paraldehyde as a hypnotic in place of chloral, and prefers it to chloral for the following reasons:

1. There is no excitement preceding its hypnotic action.
2. It has no paralyzing effect on the heart.
3. It acts more quickly.
4. The sleep produced is more natural; it is dreamless and refreshing; the patient is easily aroused, and when left alone readily goes to sleep again.
5. There are no unpleasant symptoms; no confusion of ideas when the patient awakens; no headache; no loss of appetite, even when the drug is long continued in large doses. The writer had used the drug about 150 times. The dose is from thirty to ninety minims, but the maximum dose is seldom needed to produce sleep. Smaller doses, repeated every hour, are preferable to large doses not so frequently repeated.—*Chicago Med. Times.*

Book Notices

ELEMENTS OF MODERN MEDICINE: INCLUDING PRINCIPLES OF PATHOLOGY AND THERAPEUTICS, WITH MANY USEFUL MEMORANDA AND VALUABLE TABLES FOR REFERENCE. Designed for the use of Students and Practitioners of Medicine. By R. French Stone, M.D., Professor of Materia Medica, Therapeutics and Clinical Medicine in the Central College of Physicians and Surgeons, Indianapolis; Physician to the Indiana Institute for the Blind, etc. *Indocti discant, et ament meminisse periti.* 12mo. Pp. 369. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. Price, $2,00.

This work is *multum in parvo*, in that being printed on thin but substantial paper, it is but little more than half as thick as works usually are which contain the same number of pages it does; and, in consequence of the small type employed, but distinct and easily read, each page has printed upon it double the amount of matter it would hold if type of ordinary size were used. It can, therefore, be easily carried in the side pocket of one's coat; and is bound for that purpose, having a latch and loop, and also a pocket in which can be carried the Clinical Charts devised by the author.

The work, of course, is elementary in its character, embracing the most important facts and observations marking the progress of scientific and practical medicine, which would be of valuable aid to medical students, as well as a useful book of reference for the general practitioner. In the first part of the work are included articles relating to the origin, anatomical character, and nature of disease—its course, duration, and termination—chief signs, symptoms, and significance—diagnosis, prognosis, and treatment.

In the second part, while the domain of materia medica has been avoided, there is comprehended an improved classification of drugs, followed by articles on the several classes of remedies which are available for treatment, setting forth their physiological action, indications, and methods of their use.

Among the vast amount of valuable matter contained in the work, will be found full information in regard to the clinical thermometer, the indications which it affords in diagnosis, prognosis, etc.; symptoms relating to the pulse; full instructions for examining the lungs and heart; directions for examining the urine. There are also tables exhibiting the death rate in the United States; causes of death, etc.

There is such a large amount of valuable matter in the work, that our space is altogether too limited to give an outline of it. Not only students but physicians will find it a very convenient manual.

ON RENAL AND URINARY AEFECTIONS. By W. Howship Dickinson, M.D., CANTAB, F.R.C.P.; Physician to, and Lecturer on Medicine at, St. George's Hospital; Consulting Physician to the Hospital for Sick Children, etc. Miscellaneous Affections of the Kidneys and Urine. 8vo. Pp. 343. New York: William Wood & Co. Cincinnati: Garfield.

This volume forms the August number of the present year, of Wood's Library of Standard Medical Authors. It is illustrated by very many wood-cuts.

Dr. W. Howship Dickinson is one of the ablest writers upon urinary and renal diseases in the English language. He is the author of a work upon Albuminuria which is regarded, both in this country and Europe, as a standard work upon the subject. This treatise was published in Wood's Library of Standard Medical Authors for 1881.

It has been the aim of the author to make the work suitable both for the physician and student. He has, therefore, amplified as little as possible; but where he has indulged in amplification it has been from the desire to be clinical.

Notwithstanding Dr. Dickinson's own very large experience in the diseases of which he treats, he has not hesitated to fill up the deficiencies of his own observations with that of others; and where, he says, his opportunities have been small, as with regard to parasites, he has been content to present the existing state of knowledge little else than as a compilation.

Among the many affections of the kidney treated are Abscess, or Circumscribed Tumor; Pyelitis; Suppurative Perinephritis; Thrombosis and Embolism; Renal Tumors—their Pathology, Varieties, Malignant and Non-Malignant, etc.; Tubercle; Cystro Disease; Hydronephrosis and Pyronephrosis; Renal Calculi; Diseases of the Ureters, Renal Parasites; Chyluria; Haematuria, etc.

In preparing the work the author has endeavored to make each portion level with the time. Subscribers of Wood's Library for 1885 will congratulate themselves that so valuable a volume as is this one will form one of the series.

POISONS: THEIR EFFECTS AND DETECTION. A Manual for the Use of Analytical Chemists and Experts. With an Introductory Essay on the Growth of Modern Toxicology. By Alexander Wynter Blyth, M.R.C.S., F.C.S., etc. Public Analyst for the County of Devon, etc. With Tables and Illustrations. Volume II. 8vo. Pp. 668. New York: William Wood & Co. Cincinnati: Garfield.

This volume forms the July number, 1885, of Wood's Library of Standard Medical Authors; the first volume constituting the June issue, which we duly noticed in a previous number of the MEDICAL NEWS.

This work, we learn from the Preface, has had its title changed, as in previous editions it was entitled "*Practical Chemistry.*" For, although dealing largely with poisons, their symptoms, detection, treatment, etc., it has much to do with the general principles of chemistry.

The work will be found to be of great value by physicians and students. "Foods" and adulterations of "foods" are very satisfactorily discussed, and much information imparted to the student. The forms of poisoning practiced by different nations at different periods, together with the growth of modern Toxicology, is passed under review.

The primary object in the classification followed, is the convenience of the practical chemist; but, wherever possible, "natural" groups of poisons have been formed. Snake-poison and other toxic animal secretions have received notice, and much attention has been paid to a subject comparatively unworked—that of cadaveric alkaloids.

In the Appendix will be found a brief *résumé* of the latest methods for the identification of stains of blood; and, for immediate reference in cases of emergency, it has been thought advisable to add an alphabetically arranged list of the more common poisons, with brief directions for treatment.

The work is the most complete and satisfactory treatise upon poisons with which we are acquainted.

OUR BODIES; OR, HOW WE LIVE. An Elementary Text-Book of Physiology and Hygiene. By Albert F. Blaisdell, M.D. 12mo. Pp. 235. Boston: Lee & Shepard. Cincinnati: Alfred Warren. Price, 60 cents.

This work has been especially prepared for the young, but older non-medical individuals can peruse it with profit. Its merits can be briefly stated as follows:

A brief, suggestive, and interesting Text-Book. Entirely new; written in a crisp and pointed style, from the standpoint of health and simple experiments. A chapter of plain and homely hints on every-day matters of health. An entire chapter devoted to a systematic series of practical experiments, with full explanations, hints, and helps. Questions on the text; supplementary notes; review topics; blackboard exercises and diagrams; glossary; index; numerous illustrations. Special reference to the effects of stimulants and narcotics on the human system.

THE ELEMENTS OF PATHOLOGY. By Edward Rindfleish, M.D., Professor of Pathological Anatomy in the University of Würzburg. Translated from the First German Edition. Wm. H. Mercur, M.D., (UNIVERSITY OF PENNSYLVANIA). Revised by James Tyson, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, etc. 12mo. Pp. 263. Philadelphia: P. Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $2,00.

This little work does not enter into the details of pathology as would be expected in a text-book upon the subject, but gives the general outline of such pathological phenomena as are most important and most interesting to physicians. For instance, under the head of "Irritation of the Nervous System," Delirium, Coma, Eclampsia, Pain, etc., are considered, and the features belonging to each of them are as fully described as is necessary for their full understanding.

A large number of the general processes which underlie disease, a knowledge of which is essential to the practical physician, are plainly presented. They include, besides those we have mentioned, among others, inflammation, tumor, formation, fever, derangements of nutrition, including atrophy, and the degenerations, derangements of the movements of the blood, of blood formation and blood purification, hyperesthesia, anesthesia, convulsions, paralysis, etc. These, and many other processes, are considered from this general standpoint. The well-known reputation of the author, and his thorough familiarity with pathology, and his method of treating the subject, make this work peculiarly useful to the practicing physician who wishes to brush up his pathology, as well as to the student.

As an interesting book for perusal, when one has the leisure and inclination to read, we can highly commend it to both physician and student, being full of valuable information. It is not often that a work which treats upon scientific subjects has any attraction in it for reading, independent of being a medium for the study of science, but the work before us has.

THE LONDON MEDICAL STUDENT, AND OTHER COMICALITIES. Selected and Compiled by Hugo Erichsen, M.D. Published by Dr. H. Erichsen, 11 Farmer St., Detroit, Mich. 12mo. Pp. 207. Price, $2,00.

A description of this book is best given in the language of the *Medical Age:* "Dr. Erichsen, in reproducing these sketches, has furnished a volume the reading of which will cause a sufficiency of clonic diaphragmatic contraction to unload the liver of the accumulations which are the fertile cause of 'blues,' and to work the other beneficial changes in his anatomy for which the preface prepares him. The book is handsomely issued, both as to letter-press and to binding, and will, we doubt not, meet with a cordial reception by the profession."

We cordially indorse what the *Age* has to say about the book. It is certainly a most readable volume, full of sparkling wit and humor, and stray bits of wisdom—may be not as much of the latter as Tupper's "Proverbial Philosophy," but enough to suit the taste of most persons. A good laugh now and then is healthy, but the means of provoking it are not always on hand. But in this book a magazine of provoking material will always be ready for use.

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IT is currently rumored in this city that the International Medical Congress and the American Medical Association have been captured by one of the New York schools and will be run under its exclusive patronage. "Madame Rumor" is not always an unreliable witness.—*Maryland Med. Monthly.*

Editorial.

THE DANCING MANIA.—We have no reference to the dancing indulged in for amusement, and of which some goodly ministers stand in great horror, regarding it as a device of his satanic majesty by which to entrap the thoughtless young, but we mean those convulsive movements of the body, attended with delusions, which seized upon individuals in the middle ages, and which were thought to have been produced by supernatural powers. It may seem strange to persons of the present day, and hardly credible, but is nevertheless true, that several hundred years ago an epidemic of this "dancing mania" passed over nearly the whole of Europe, attacking thousands.

Dr. J. F. C. Hecker has written a brief history of the "Dancing Mania," which has been translated by B. G. Babington, M.D., F.R.S., of England. From this historical sketch we learn that in the year 1374 assemblages of men and women were seen at Aix-la-Chapelle who had come out of Germany, and who, united by one common delusion, exhibited to the public, both in the streets and in the churches, the following strange spectacle. They formed circles hand in hand, and, appearing to have lost all control over their senses, continued dancing, regardless of the bystanders, for hours together in wild delirium, until at length they fell to the ground in a state of exhaustion. They then complained of extreme oppression, and groaned as if in the agonies of death until they were swathed in cloths bound tightly around their waists, upon which they again recovered, and remained free from complaint until the next attack. This practice of swathing was resorted to on account of the "*tympany*" which followed these spasmodic ravings.

It was but a few months ere this demoniacal disease had spread from Aix-la-Chapelle, where it appeared in July, over the neighboring Netherlands. In Liege, Utrecht, Tongres and many other towns of Belgium, the dancers appeared with garlands in their hair and their waists girt with cloths, that they might, as soon as the paroxysms were over, receive immediate relief on the attack of the "tympany." This bandage was, by the insertion of a stick, easily twisted tight; many, however, obtained more relief from kicks and blows, which they found not a few persons ready to administer; for whenever the dancers appeared, crowds of people flocked together to gratify their curiosity with the frightful spectacle. At length the increasing number of the affected excited no less anxiety than the attention that was paid them. In towns and villages they took possession of the religious houses, processions were everywhere instituted on their account, and masses were said and hymns were sung, while the disease itself, of the demoniacal origin of which no one entertained the least doubt, excited everywhere astonishment and horror. In Liege the priests had recourse to exorcisms, and endeavored, by every means in their power, to allay an evil which threatened so much danger to themselves; for the possessed assembling in multitudes frequently poured forth imprecations against them, and menaced their destruction. They intimidated the people also to such an extent that there was an express ordinance issued that no one should make any but square-toed shoes, because these fanatics had manifested a morbid dislike to the pointed shoes which had come into fashion immediately after the *Great Mortality*, in 1350. They were still more excited at the sight of red colors. Some were unable to endure the sight of persons weeping.

A few months after this dancing malady had made its appearance at Aix-la-Chapelle, it broke out at Cologne, where the number of those possessed amounted to more than 500, and about the same time at Metz, the streets of which place are said to have been filled with 1,100 dancers. Peasants left their plows, mechanics their workshops, housewives their domestic duties, to join the wild revels; and this rich commercial city became the scene of the most ruinous disorder. Secret desires were excited, and too often found opportunities for wild enjoyment; and numerous beggars, stimulated by vice and misery, availed themselves of this new complaint to gain a temporary livelihood.

Dr. Hecker proceeds to state that, in 1418, this dance made its appearance at Strasburg, where it got the name of "St. Vitus' Dance," or "Chorus Sancti Viti." Burton, in his *Anatomy of Melancholy*, says that it is called St. Vitus' Dance, "for that the parties so troubled would want to go to St. Vitus for help; and, after they had danced there awhile, they were certainly freed. 'Tis strange to hear how long they will dance, and in what manner, over stools, forms, tables; even great-bellied women sometimes (and yet never hurt their children) will dance so long that they can stir neither hand nor foot, but seem to be quite dead. One in red clothes they can not abide. Music above all things they love; and therefore magistrates in Germany will hire musicians to play to them, and some lusty, sturdy companions to dance with them. This disease hath been very common in Germany, as appears by those relations of Schenkins, and Paracelsus who, in his book of madness, brags how many several persons he hath cured of it. Felix Platerns reports of a woman in Basle whom he saw, that danced a whole month together."

Dr. Hecker says that after the epidemic had prevailed for some time in Strasburg, swarms of dancers passing through the streets day and night accompanied by musicians playing on bagpipes and by innumerable spectators attracted by curiosity, among them anxious parents looking after children, the town-council began to stir in the matter, and responsible superintendents were appointed to protect them from harm, and, perhaps, also to restrain their turbulence. They were thus conducted on foot and in carriages to the chapels of St. Vitus, near Zabern and Rotestein, where priests were in attendance to work upon their misguided minds by masses and other religious ceremonies. After divine worship was completed, they were led in solemn procession to the altar, where they made some small offering of alms, and where it is probable that many were, through the influence of devotion and the sanctity of the place, cured of this lamentable aberration. It is worthy of observation, the historian says, that, at all events, the Dancing Mania did not recommence at the altars of the saint, and that from him alone assistance was implored, and through his miraculous interposition a cure was expected, which was beyond the reach of human skill.

Dr. Heller gives a brief sketch of the life of St. Vitus, which he has gathered from sources at his command. He states that he was a Sicilian youth, who, together with Modestus and Crescentia, suffered martyrdom at the time of the persecution of the Christians, under Diocletian, in the year 303. He probably would have been passed over unnoticed among the numerous apocryphal martyrs of the first centuries, had not the transfer of his body to St. Denys, and thence, in the year 836, to Corvey, raised him to a higher rank. His altars were multiplied, and the people had recourse to them in all kinds of distempers, and revered him as a powerful intercessor. A legend was invented by the priests, that St. Vitus had, just before he bent his neck to the sword, when about to suffer martyrdom, prayed to God that he might protect from the Dancing Mania [it is to be presumed that he was given a foresight of the epidemic that was to take place at the time it did] all those who should solemnize the day of his commemoration, and fast upon its eve; and that thereupon a voice from heaven was heard, saying, "Vitus, thy prayer is accepted." Thus St. Vitus became the patron saint of those afflicted with the dancing plague, as St. Martin, of Tours, was at one time the succorer of persons in smallpox; St. Antonius of those suffering under the "hellish-fire" [Erysipelas], and as St. Margaret was the Juno Lucina of puerperal women. Of course all physicians know that St. Vitus' Dance is the proper name, of modern times, of the disease known as "Chorea."

Dr. Hecker refers to the religious excitement which prevailed in the United States, especially Tennessee and Kentucky, at the beginning of the present century. A great many at present living remember the remarkable phenomena exhibited in very many persons who became affected with religious enthusiasm. The manifestations in many instances consisted in alternate laughing, crying, singing, shouting, and, at the same time, performing every variety of gesticulation which the muscular system is capable of producing. The contractions of the muscles would be sudden and violent, such as are denominated convulsive, being sometimes so powerful, when in the muscles of the back, that the patient would be thrown on the ground, where for some time his motions would more resemble those of a live fish when thrown on land, than anything else to which they could be compared. The affection would have remissions and exacerbations, which observed no regularity in their occurrence or duration. The sensations were generally agreeable, which the enthusiastic class often endeavored to express by laughing, shouting, dancing, etc.

A well-marked case, the author states, approximating to the original Dancing Mania, was described in the seventh volume of the Medico-Chirurgical Transactions. The patient, a young married woman, is described to have suffered from headache and sickness, together with involuntary motions of the eyelids, and most extraordinary contortions of the trunk and extremities, for several days, when the more remarkable symptoms began to manifest themselves.

On February 26 she began to have slight motions in bed, which increased until she was hurled from side to side of the bed. Sometimes she would be thrown forcibly upon her feet, when she would jump and stamp violently. Intermissions and exacerbations occurred until the afternoon, when she was impelled into every corner of the room, and would strike the doors and furniture violently with the hand, as she passed near them, the sound of which afforded her great satisfaction.

February 27. She had several paroxysms, striking the furniture more violently than on the previous day. Kneeling on one knee, with the hands upon the back, she would spring up suddenly and strike the top of the room with the palm of the hand. She frequently danced upon one leg, holding the other with the hand, and occasionally change the legs.

February 28. On this day, besides the repetition of many of the acts before mentioned, it was curious to observe her move around the room with all the vivacity of the country dance, or the graver step of the minuet, the arms frequently carried not merely with ease, but with elegance. When she looked upward there was an irresistible impulse to spring up to touch little spots or holes in the ceiling. Instrumental music having been introduced into the room, it was found to increase very much the efforts at dancing.

Reports of similar cases, it is stated, were sent to the *Edinburgh Medical and Surgical Journal* and were published in it—23d vol., p. 261; 31st vol., p. 299; 5th vol. of the Medico-Chirurgical Transactions, pp. 1 to 23. It is probable that from these and other English and Scotch medical journals Dr. Hecker, a German, obtained his information in regard to these phenomena of religious enthusiasm which occurred in the early part of the century in Tennessee and Kentucky.

At the present time in many of the towns of this country and England there are bands of men and women accoutered in military style, having officers, banners and bands of music, which style themselves Salvation Armies. Springing up, as these so-called armies have, in great numbers in different places, they seem to have been excited by an epidemic influence of some kind; but to what extent it may be akin, if any at all, to the epidemic influence which spread over Europe in the middle ages, producing the "Dancing Mania," and to that which brought about, seemingly, the same Mania in Tennessee and Kentucky, we can not say. We would not be surprised if they were related to one another.

We think that these psychical phenomena and the causes of them are subjects of interest and worthy of investigation. It would really seem that it is possible for causes to suddenly spring up which are capable of producing, if not a general mania in large numbers of a community, at least a monomania.

REMARKABLE PROPOSITIONS.—In the *Record* of September 5, there appears a series of propositions of such a character that it strikes one that the author of them must be a person of wonderful logical powers of mind. We have often heard mention of processes of reasoning that were most conclusive—that were so convincing in their deductions that it would be impossible to gainsay them. But while we have thus met with powerful logic in the past, logic that would establish the correctness of a complicated proposition as clearly as if it were an axiom that requires only its expression for assent, yet we must confess that the potent reasoning displayed by the author of the remarkable propositions in the *Record* eclipses all in its force of conviction that has come to our attention.

Proposition I. of the series of remarkable propositions says, "that the American Medical Association Committee was invitatory as well as executory."

Proposition II. "That the International Medical Congress accepted the invitation of this committee."

Proposition III. "It follows that this committee became the organ of the Congress" (on accepting the invitation).

Proposition IV. "That this committee of eight had no existence, so far as the Congress is concerned, until the Congress created it" (by accepting the invitation).

Proposition V. "That when formed it became the organ of the Congress, its controlling body in this country, to carry out its objects."

Proposition VI. "That so far as the Congress is concerned, this Committee of eight was only one of invitation, and could hold no power from the American Medical Association to act for the International Medical Congress, a superior organization, created for scientific purposes, and without local politics."

Remarkable Proposition VII. "That as a committee of the American Medical Association, it was the duty of the committee of eight to report the result of its action to the body which created it, which having been done, it ceased to exist as an agent of the American Medical Association, because its creator has no power to act, as an association, for the Congress."

Very Remarkable Proposition VIII. "That the new committee of twenty-eight, added to the eight original members, does not exist, as the American Medical Association has no power to create such for the International Medical Congress."

Very Remarkable Proposition IX. "That the committee of eight can resign as appointees of the Congress, *only*, by the consent of that body or its executive committee, and that it is still amenable to the Congress as its agent, *and it is its duty to act as its representative and ignore the action of the American Medical Association entirely.*" (The italics are ours).

These Propositions, which we have quoted literally, strike us so forcibly as almost to deprive us of our breath. In fact, we are so overpowered by the vigor of their originality or the originality of their vigor (we scarcely know which to term it), that we hardly feel able to reply. To whose mind did it ever occur before, until this wonderful logician disclosed it, that a committee appointed by a body to carry an invitation to another body, paying its expenses from its treasury, ceased to be the committee of the inviting body so soon as its invitation was accepted, and became the committee of the invited body? Beginning with Aristotle and Bacon, and coming on down through the centuries to our modern times until we come to Locke, Bacon, and other great reasoners, who have invented all sorts of processes of reasoning, we do not believe that a single logician can be developed capable of developing such a reasoning process. The only fault that we can find with it, is that the American Medical Association, having paid the expenses of the eight individuals from this country across the Atlantic to Copenhagen in Denmark, while they were *its* committee, and their hotel bills in Copenhagen until they had delivered the invitation, *then* having become the committee of the Congress so soon as the Congress accepted the invitation, the Congress should have paid their hotel bills during the remainder of their stay in Copenhagen and their traveling expenses from that out-of-the-way place, across the Atlantic, to this land of the free and home of the brave. But a little break in the logical harmony involving money, the paying of expenses, is not worthy of consideration. What is money, but trash? And trash should have no weight in a syllogism or any other reasoning process.

But enough. We had thought of saying more, but on reflection, we have concluded not to do so. We feel sure that the author of these very remarkable Propositions has become thoroughly exhausted in delivering them; for the editor of the *Record* does not mention his name; and if we should attempt any criticisms upon them, it might result in his attempting to evolve further original propositions, followed by still further exhaustion.

Medical societies and other bodies should keep in mind, that, if they appoint a committee to convey an invitation to another organization, so soon as the invitation is accepted, the committee which they have created is no longer under their control, and can do as it pleases, so far as they are concerned. Of course it is not to be understood that the inviting body is to be exempt from the footing of all bills—such as the expenses of the committee, rents of halls, services, entertainments, and the hundreds of other things attending upon holding a convention.

PARACENTESIS IN PERICARDIAL EFFUSIONS.—Dr. J. Leech, in the *Medical Chronicle*, of Manchester, England—September—says that three times in the last six months has he seen patients "in evil plight," through extensive pericardial effusion. In two of these cases he did not have an opportunity to perform paracentesis, and both died. In the third case, a barman, aged 20, of temperate habits, the operation was performed, and the patient is still living, although he has extensive valvular lesions and affection of the kidneys. We have not space to copy in detail the history of the case. The inflammation of the pericardium, resulting in effusion, followed upon rheumatic fever. The evening temperature varied from 100° to 101°. The heart's impulse was raised; it had at one time been distinct as low as the sixth space, but could now be faintly felt in the upper part of the fifth space, just external to the nipple. No friction sound could be heard, no increase in the left pleural effusion could be detected. There was evidence of bronchitis affecting both lungs. It was manifest that a very great increase had taken place in the pericardial effusion. The dullness extended as high as the first rib, two fingers breadth beyond the right edge of the sternum. His distress was extreme. He could not lie down, and had passed a miserable night owing to cardiac pain, dyspnea, and restlessness. After the operation the area of dullness was greatly lessened in size, and the general condition of the patient had improved. The pain was lessened, and he breathed more freely than he had during the previous forty-eight hours; at night he slept better than he had for many nights, and evidently the operation had greatly benefited him.

Inflammation of the pericardium, says Dr. Leech, is now regarded with less apprehension than in former times. We no longer combat it with general bleeding or other severe methods of treatment, and the remedies to which we have recourse—leeches, blisters, iodide of potassium, etc.—are used rather with the idea that they may possibly be of service than with any assured conviction of utility. Experience has taught us that with rest and protection of the chest walls, inflammation of the serous membrane will, in most cases, subside; and the effusion to which it has given rise will be absorbed. From time to time, however, he says, cases come before us in which rest and the usual remedies are tried in vain. The effusion gradually increases, dyspnea becomes severe; the fluid accumulated in the pericardial sac, besides interfering with the heart's action, presses on the surrounding organs, and the patient's life is evidently in jeopardy. The question is, Shall we temporize, hoping that, at the last moment, may be, absorption will take place and the patient will be relieved? Dr. Leech is of the opinion that lives are sometimes lost by too long temporizing, and that paracentesis should be performed when symptoms become urgent. He remarks that since 1819, when the operation was first introduced by Romero, only about 100 cases have been recorded, showing plainly that temporizing is greatly the rule.

New Microscope Objectives.—Mr. Ernst Gundlach, the distinguished maker of objectives at Rochester, New York, has very kindly sent us a communication which appears in the Microscopic Department of this number of the Medical News, describing the prominent features of a form of objectives devised by him, which promises to be superior to to the homogeneous objectives made by Carl Zeiss, of Jena, and invented by Prof. Abbe. The construction of homogeneous objectives was, undoubtedly, the greatest advance in the making of microscopic lenses since opticians learned to make them achromatic by the use of crown and flint glass, so that one medium corrected the aberrations of the other, a feat which the great Sir Isaac Newton declared would never be accomplished.

What a great discovery was it of making lenses achromatic! We do not believe we claim too much for it if we class it equal to the discovery of the telegraph. It opened to us a new world, the existence of which we could not have known. Besides the advance it gave to other sciences, the benefit it has been to all the departments of medicine is incalculable, and yet we have, as yet, only entered upon the threshold of the researches which it has put in our power to make.

Although, as we have stated that the discovery of homogeneous objectives constitutes the greatest advance in practical optics since the optician has learned to make lenses achromatic, yet Mr. Gundlach seems to be of the opinion that the construction of them to be used as immersion with a homogeneous fluid is not the reason of their superiority only to a limited extent; but that the four-system principle is the important feature. Now the late Mr. Tolles, of Boston, made four-system glasses before we ever heard of homogeneous objectives, and although they were of great excellence, yet they did not possess the resolving power of homogeneous lenses.

But Mr. Gundlach's objectives, made upon a new theory which he has reasoned out, will speak for themselves. He has promised us that he would soon send us samples; and, consequently, we hope that it will not be long before we will have the pleasure of reporting our experience with them. Briefly, he says the main principle involved in the construction of his newly invented objective is to give the crown-glass lens such a form as to have for itself the least possible spherical aberration, and then correct this minimum by the flint-glass lens. In this way they can be made either water immersion or dry, and thus get rid of the inconvenient cedar oil or other invented homogeneous fluids. If Mr. G. succeeds, he will attain an illustrious position as an optician which few have reached. Before he came to this country he had acquired a European reputation as an eminent maker of objectives, and since he has been here his work has been regarded as equal to the best made in the world.

TRANSACTIONS OF THE SEI I KWAI.—This is the title of a medical journal which we have been receiving monthly for a number of months, from the far distant country of Japan, containing the papers read at the meetings of the SEI I KWAI MEDICAL SOCIETY. No doubt many will be surprised to find that civilization and progress in knowledge has so advanced among our Japanese brethren as to call for the establishment of a scientific medical journal. But such is the fact, as is attested by the existence of this journal.

These *Transactions* are published at Tokyo, Japan. We are in receipt of the August number, which is like previous issues in size, appearance, etc. It has seventy-two duodecimo pages—thirty-two being printed in English and forty in Japanese. The subscription price is Yen 1.50; abroad, including postage, $2.00.

The Society, SEI I KWAI, has a library under its auspices. The committee having charge of it is composed of native and foreign members. The native members are Kanehiro Takaki, F. R. C. S., Eng.; Dr. Kensai Ikeda, Physician to H. I. M. the Emperor; Dr. Sensai Nagayo, Director Sanitary Bureau, Home Department; Dr. Hide Miyake, Principal of the Faculty of Medicine, University of Tokyo; Tsunatsune Hashimoro, Surgeon Major, H. I. M.'s Army; Chiutoku Ishiguro, Surgeon Major, H. I. M.'s Army. The foreign members are J. C. Hepburn, M.D., LL.D.; Stuart Eldridge, M.A., M.D., Surgeon to the Government Hospital, Kanagawa, and Member of the Central Sanitary Board; W. N. White, M.D.

The Society will feel very grateful for any donations made in the way of books and pamphlets. They may be sent directly to the Library, directing to No. 6, Shin Sakana Cho, Kyobashi Ku, Tokyo, Japan, or they may be directed, "Japanese Medical Library at Tokyo," care of Yokohama Specie Bank, No. 7 Warren Street, New York City. This New York bank will take great pleasure in forwarding, without charge, donations of any kind to the Library. Acknowledgments will be made in the *Proceedings of the Society*.

The type of the articles in the Japanese department of the journal looks to us precisely like the hieroglyphics seen on tea chests. The titles of some of the articles in this department, we learn from the contents, are "Discussion on the Treatment of Gleet"; "Case of Fever from Catheterism"; "On the Diagnosis and Treatment of Chronic Endometritis," etc. We propose now and then to copy an article from the English department of the journal.

AMERICAN RHINOLOGICAL ASSOCIATION.—The following are the subjects of some of the papers (with the authors' names and addresses) to be read at the third meeting of the American Rhinological Association, to be held at Lexington, Ky., Oct. 6th, 1885.

Address to the Association on Rhinology, by the President, P. W. Logan, M. D., of Knoxville, Tenn.

Chronic Otitis Media: Its Treatment in Connection with Nasal Disease. By Hiram Christopher, M. D., of St. Joseph, Mo.

Self-Deception. By the same author.

Hypertrophic Rhinitis: Its Sequalæ and Treatment. By J. A. Stucky, M. D., of Lexington, Ky.

Treatment of Catarrh, Acute and Chronic. By A. DeVilbiss, M. D., of Toledo, Ohio.

Treatment of Neoplasms of the Naso-Pharyngeal Cavity. A new Snare. By J. G. Carpenter, M. D., of Stanford, Ky.

Aural Catarrh and Treatment by Different Methods, with the Theory of Each System. By Chas. A. S. Sims, M.D., of St. Joseph, Mo.

Chronic Conjunctivitis Dependent upon Intra-Nasal Disease. By N. R. Gordon, M. D., of Springfield, Ill.

Demonstrations (on the cadaver) of the Nasal and Pharyngo-Nasal Cavities, the Pharynx and Larynx. The Sections of the cadaver will show all the Cavities, Canals and Sinuses connected with the Nasal and Pharyngo-Nasal Cavities. By Thos. F. Rumbold, M. D., of St. Louis, Mo.

Demonstrations of the Manner of Making Applications by means of the Spray Producers; the age of the patients being respectively 1, 3, 8, 15 and 20 years, and older. By the same author.

Removal of Foreign Bodies and Tumors from the Upper Air Passages, with demonstrations on a phantom head. By the same author.

Treatment of Pruritic Rhinitis [Hay-Fever], by Spray Producers alone; cases. By the same author.

On the Treatment of Secondary and Tertiary Syphilis of the Larynx, Pharynx and Mouth. By Jos. B. Payne, M. D., of Hot Springs, Ark.

A Few Suggestions on Hypertrophy of the Turbinated Processes. By E. F. Henderson, M. D., of Los Angeles, Cal.

Seven other papers are promised, but the subjects have not yet been given to the Secretary.

The full Programme will be ready to mail to any address on and after the 23d of September, on application to any of the above members, or to

CHAS. A. S. SIMS, M. D., *Secretary*.

ST. JOSEPH, MO.

A FRAUD.—A subscriber of the MEDICAL NEWS recently sent us a page torn from a catalogue and price-list of a house doing business in Cincinnati, on which was a cut of a microscope which was represented to have belonging to it a half inch and one-sixth inch objectives, the latter able to exhibit the lines or striæ of p. angulatum—price of the instrument, thus furnished, was stated to be $22.50.

The subscriber by thus referring the matter to us, before purchasing, saved himself from being swindled. There is no microscope with objectives of the quality that the objectives of this instrument are represented to be, that can be sold at retail for less than from $45 to $50. A one-sixth inch glass alone, of *third-class quality*, is sold at not less than from $16 to $18; of *second-class quality*, from $28 to 30; of *first-class quality*, $40. We quote from the price-lists of the cheapest makers. Some makers charge from $25 to $30 for a one-sixth of a third-class quality, and from $65 to $80 for one of first-class quality. With one objective of the value of at least $16, how can the whole instrument be sold for $22.50? The value of a power of one inch and under is not less than $9. A French microscope, with a couple of triplets, could be sold probably for $22.50, but certainly no other kind. A person contemplating purchasing a microscope, who has had no experience with the instrument, should always consult some one whom he knows is familiar with it.

INTERNATIONAL MEDICAL ASSOCIATION.—The meeting of the Committee of Arrangements of the International Medical Congress, of which Dr. Cole, of California, is chairman, and Dr. Shoemaker, of Philadelphia, is secretary, met at the Murray Hill Hotel, September 3d and 4th. A large attendance was present, and a very harmonious meeting held. The terms of admission are so broadened that there will be no excuse for any of the malcontents not participating in the Congress, and if they still further decline, it will be to their discredit, and they will exhibit themselves in such a light before our foreign brothers that their reputations, which have been so well earned in the past, will be in jeopardy. The Congress is now organized, the officers are appointed, and that they are men of international reputation can not be gainsaid. The committee of arrangements has virtually ceased to exist. The American Medical Association has now nothing further to do with it, and the organization will have to stand upon its own bottom. The election of Dr. Davis, of Chicago, as Secretary General, is one which will commend itself to every one who has the interest of the Congress at heart, and we predict for him a most cordial and enthusiastic support. Now, let all bickering cease; let *all* rise above personal feeling and petty prejudices, and work for the success of the Congress and the credit of the Profession of America. All concessions have been made, and unity of action and the burial of personal feelings will insure, no doubt, a great success. The Congress is organized; *it will be held*; and the sooner all the opposing elements unite, the greater the success that will crown the efforts of the committee, which have been arduous and unremitting.

STILL LIVING.—Just before issuing the August number of the MEDICAL NEWS a report came to us that the venerable ex-President of the American Medical Association, Dr. John L. Atlee, of Lancaster, Pa., was dead. Of course, having no doubt but that the information was correct, we duly announced the decease of the gentleman with such laudatory remarks as expressed our feelings and sentiments in regard to him.

We are happy to announce that Dr. Atlee is not dead, but still liveth. It seems to have been a son of the doctor that died, and his son's death led to the report that he himself had departed this life. Although it may not be pleasant to be heralded as having been added to the number of the "great majority," yet it has enabled the doctor to know in how high estimation he is held by his professional brethren. We hope it may be a long time before we will be called upon again to write an obituary notice of him.

MICROCOCCI AND INFLAMMATION.—Alex. Ogston, M.D., C.M., Professor of Surgery, University of Aberdeen, says that several years ago he undertook a series of investigations concerning the connection of abscess, phlegmon, pyemia, septicemia, and erysipelas with one another and with micro-organisms, and published their results. Briefly put, they were these: Acute suppurative inflammations are always due to micrococci, and the gradations existing between the slightest forms of this and the severest forms of pyemia and septicemia as seen in man, and capable of being produced in animals, prove that all are dependent on the same cause, modified by the greater or less resistance of individuals. At first denied or doubted, every subsequent investigation has tended to confirm these conclusions, and they are now held by the best pathologists to be correct, or nearly so.

PILL COATINGS.—The inquiry is frequently made of us if sugar is not a better material for coating pills than gelatine. It is most undoubtedly. We have this information not merely from those who manufacture sugar-coated pills, but from chemists and pharmacists who have no interest in the matter one way or another. Sugar is always readily soluble, and therefore does not form over the pill a coating that is difficult of solution We have a number of times known persons to pass pills entirely unacted upon by the fluids of the stomach, that had been coated by other material than sugar.

When we prescribe medicines in pills we always direct the patient to procure those that are coated with sugar; and such as have been put up by a well-known house—a house that is known to have skill in sugar-coating pills.

"PEPTONIZED" COD-LIVER OIL AND MILK.—While the value of cod-liver oil in pulmonary troubles is beyond question, the fact is about equally well-established that the cases in which it is most clearly indicated are those least competent to assimilate or even tolerate an agent which calls for the exercise of full digestive activity to secure its effective action. To meet this difficulty many efforts have been made, with more or less success. In the preparation now offered us, however, we feel confident a great advance has been made. Not only is the oil peptonized, making its assimilation easy to even the most delicate stomach, but the taste—so intolerable to a great number of patients—is completely masked by compounding with it probably the best and most pleasant vehicle available, viz., milk. This latter is condensed *in văcuo* to about the specific gravity of the oil itself, and so thoroughly incorporated with it, by a new and original process, as to completely overcome the tendency to separation so characteristic of the ordinary emulsion. The therapeutic value of the preparation has been fully demonstrated by a three years' test in our leading hospitals, and by a large mass of clinical evidence from individual practitioners.—*Canada Medical Record.*

CONTRACTION OF THE HEART CONTROLLED BY THE WILL.—Dr. Cobleigh, of Tennessee, whom our readers will recognize as a frequent contributor to the MEDICAL NEWS of interesting and valuable articles, mentions in this issue, under the heading of "Scraps," a physician of his acquaintance who has the power of suspending, for a few seconds, the pulsations of the heart. Besides being able to stop the heart-beats for eight to ten seconds, he can modify the action of the heart by intermitting a beat at regular intervals from the rhythmic systole of the heart. We have seen the record of a case or two in which a volitional power over the contractions of the heart was possessed, but have never met with an instance ourselves.

A NEW MEDICAL JOURNAL.—A new medical journal, we understand, will make its appearance in Cincinnati the coming month, to be devoted to both medicine and dentistry. The title of it will be the *Cincinnati Medical and Dental Journal.* Dr. Thrasher is to have charge of the medical department, and Dr. Sage of the dental department. Dr. T. has had some editorial experience, having formerly assisted in editing the *Lancet and Clinic.*

The new journal will have our best wishes for success. There is, undoubtedly, room in Cincinnati for a second monthly.

THE
CINCINNATI MEDICAL NEWS.

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Original Contributions.

More Scraps.

PURSUING still further the fragmentary sketch of varied medical experiences, begun last month under the title of "Scraps," I now add more scraps to that collection:

A boy was brought to me suffering from a sinus in sole of foot, which constantly discharged a sero-pus, and had been doing so for two years. The history was that he jumped off a fence on to a "snag," which had been cut at an angle by a bush scythe, and stuck same in foot. He pulled it out immediately, and, on reaching home, a physician was summoned, who pronounced everything satisfactory, dressed the wound and left. Suspecting, from the character of the pus, the periosteum was injured by the snag, I thought probably caries or necrosis had followed the injury. Tried to establish this by careful probing, but could not satisfy myself thus, and suggested an exploratory incision. This was refused and case dismissed without treatment, though I frequently saw the boy about his home when I passed there. Eighteen months later the foot inflamed, an abscess formed on its plantar aspect, pointed spontaneously and discharged a fragment of the stick over an inch long and three-eighths of an inch thick, with complete recovery of the foot and its utility unimpaired. This emphasizes the necessity of most thorough search for causes in chronic ailments, particularly old ulcers and fistulæ.

A parallel case of carelessness and error in treatment fell under my notice a few months ago. A father brought me a cherry-stone, and holding it between his fingers, remarked: "This just came out of my little boy's nose, where it has been for over a year, producing a constant discharge from one nostril and sometimes from both, often bloody and always annoying. My family physician frequently saw the child, and had persistently treated him, with a douche, for catarrh, with no improvement, and without once making an examination of the nostril." And yet that doctor stood well, did a large practice, and was reputed as an astute and careful practitioner. Here was a rhinolith of a year's standing, causing a catarrh which might easily have been cured at any time by the removal of its cause, and which disappeared, spontaneously, in a very short time after the little fellow dug the offending substance out of hiding.

Several years ago a man of about of forty, of fine physique, and never ill in his life, consulted me for a peculiar hemorrhagic condition. For three years, every morning about two or three o'clock, he had awakened from sleep with a cough which lasted but a moment, but was followed immediately by the spitting up of about a tablespoonful of pure, but slightly coagulated and florid blood. This done all was over, and he experienced no further difficulty as to his sleep. Very little cough at any other time, and *never* any hæmoptysis except at the usual hours. He had been under the care of two other intelligent country physicians without relief of this symptom. A farmer by occupation, he was able to follow his arduous occupation without difficulty, and there was no appreciable impairment of his bodily vigor or endurance. On the most careful and repeated examinations I never could detect the least sign of any disease anywhere; the lungs, the heart, great vessels, liver and kidneys gave only negations to all my interrogatories. I gave him divers plans of treatment, enforced absolute idleness for a time, all to no purpose whatever. Finally, after being under observation for upward of a year, the bleedings ceased spontaneously and have never returned—now three years past—the general health continues perfect. Query, where came the blood from and why?

A boy of ten came to me with a lump on one side of his tongue, about half way to the base of that organ and deeply imbedded in its substance. There was considerable pain, swelling and tenderness—every indication of an embryotic abscess—the lump itself being as large as a small marble. I anticipated suppuration as inevitable, and expected to lance the abscess in a few days. Ordered free use of warm water in mouth, salines and opiates internally. Five days later the whole thing was gone and tongue perfectly well. Fifteen months later the same thing recurred and ran an identical course, in same place and under the same treatment, but this time, induration, to some extent, hung on for several weeks, though finally disappearing. No recurrence now for four years.

At the county poor-house I once saw a young female inmate suffer a hundred and twenty-seven seizures of hystero-epilepsy within a period of eighteen hours. Each paroxysm was distinct from its fellows, but during the whole seizure the different fits varied considerably in duration, severity and manifestations. I fully demonstrated, in this case, the correctness of the observation that while bromides are serviceable in true epilepsy, they are worse than useless in this class of cases. The same held good with most remedies generally applicable in eclamptic states. Subsequent occasional attacks occurred at irregular intervals, in this same patient, during some months that she remained in the institution under my care, but no more of prolonged duration or very great severity. I afterward saw a male prisoner in the county jail—a murderer—suffer from well marked hystero-epilepsy , four fits in an hour and a half. The only case I ever witnessed in a man. He subsequently died in the mines, while serving a sentence, of some disease of the nervous system complicating chronic diarrhœa, but I never heard of his having any more fits.

Six years ago, an old negro woman, of stout constitution and quite portly form, received a No. 32 pistol ball in the right thigh, by the accidental discharge of the weapon in the hands of a young man who was cleaning it. Shot entered just below the groin on anterior aspect of limb and to its outer side. Careful probing could trace the track of the ball to the femur, where, without shattering the bone, it seemed to have glanced and got out of my field of discovery. But the shot ranged very slightly upward, and my opinion was that the ball had probably gone up and, perhaps, into the pelvis. Patient reacted very well and did nicely up to fifth day, though there was a moderate discharge of pus from wound, and a considerable tumefaction of whole limb. Still no signs of ball anywhere. Condition of leg reminded me of that of phlegmasia dolens. At this time I was called away from home, expecting to return the next day, but it was four days before I got back. I found that no one had been called in to my case, in my absence, as should have been done, and the leg was in a fearful fix. There was enormous swelling, and from the groin to the knee and including the joint, marked fluctuation almost everywhere, with tissue-paper-like crackling on pressure, signs of blood-poisoning and great prostration. I took my lancet to make deep incisions for the escape of pus, but on elevating the foot, preparatory thereto, the accumulated matter gushed out of the wound in a full stream, and for several minutes, to the extent of more than twenty ounces, with prompt reduction of the size of thigh, and the drainage by this means seemed so free that I decided not to make any more openings, especially as the patient and friends earnestly protested against such proceedings, believing she would die anyway, and I confess that I echoed their prognosis. So I put her on supporting treatment with anodynes; encased the limb in a rubber bandage its entire length, and elevated the foot so that no pus could collect anywhere by gravitation. Some antiseptic measures were adopted, but only simple ones. To be brief, I may say that a very free flow of pus from the original wound continued for many days, gradually but steadily improving in character; there was also a constant improvement in her general health, and eventually complete recovery resulted without any permanent deformity or loss of function. The ball never was found, but the old woman, now as fat as ever and about seventy years of age, frequently presides over the washtub, and this without any counter openings for drainage and despite the seeming liquefaction of the tissues of the thigh to an enormous extent. Had she been young and strong, and the suppuration confined to a lower part of the extremity and less adipose tissue to deal with, I should have been tempted even to amputate the limb, high up, on my return to the case after the four days' disastrous absence. To my mind it was a remarkable demonstration of the inherent recuperative powers of the system, even in old age, and I learned a valuable lesson of masterly inactivity in many cases where otherwise I should have interfered by art, and, perhaps, "meddlesomely."

A little over a year ago I was engaged to attend a lady in confinement—first pregnancy. Owing to long continued menstrual irregularities she could not be positive of the period of conception, but had settled on a certain date as her probable time for confinement, and, from history given, I was inclined to coincide in her opinion. She resided five miles from my home. In this case she was, during six weeks immediately subsequent to the expected date of confinement, seized with seeming labor-pains on eight different occasions, and it was necessary for me to visit her each time. The pains had every indication of being true efforts at labor, and the os, under them, would actively dilate to the size of a silver dollar, and there further progress ceased, either by complete cessation of the pains or by failure of the os to be further influenced by them, though it was readily dilatable and in good condition. The patulous state of the uterine os would sometimes continue, as I found by examination, for two or three days after pains had ceased, either spontaneously or under anodynes. Her condition was such that I deemed it best to let nature have undisputed sway, and finally she had a good delivery and a safe getting up. Had my experience not led me to discard the old warning of authors, "Never leave a woman for an instant after the os is dilated to the size of a crown," I might here have either induced labor or staid with this one patient most of the time during about six weeks.

And now I will wind up my scraps by throwing out an idea as to giving medicine to unruly and obstinate children, who spit out the contents of a spoon as fast as poured into their mouths. If hypodermic medication, in such a case, is out of the question, I have found the use of a small hard rubber syringe an indispensable adjunct with another method of administration. By this the liquid to be given may easily be injected behind the molars of tightly-clenched teeth, or more often in the vacancies where new teeth are to come, and thrown way back into the fauces beyond the control of the obdurate patient, so that no spilling out is feasible. With due care in using this trick I have found the danger of strangling no greater than by the ordinary spoon method, not a drop (or scarcely any) is wasted, precision of dose is obtained, the struggle is vastly expedited, and, as a rule, the little fellows are so "cowed" by this unexpected taking advantage of them that they give up the struggle after one or two efforts and take the subsequent doses without rebellion. Most of them seem to afterward prefer the use of the syringe to the spoon, and it is certainly vastly more convenient to the operator where the spoon has to be several times refilled, as the capacity of the syringe may be so arranged as to handle a large dose without removal from the mouth. This instrument, slowly operated, is also a convenient infant feeder—as a substitute for the spoon in ordinary use. The child can suck the nozzle naturally while the milk is being forced out, and thus avoid the swallowing of air which sometimes aids in the production of infantile colic in artificially-fed babies.

The Popular Prejudice Against Mercury.

BY W. S. CARY, M.D., ST. LOUIS.

ILLUSTRATIVE of the length of time required for dispelling a prejudice from the minds of the majority of people, may be cited the popular antipathy to the use of all preparations of mercury—a knowledge of which prejudice is familiar to the veriest tyro in medicine.

Beginning, as it did, when the reaction against the use of this important remedy first set in, and based on what we all must admit was a substantial foundation, viz., the frequent occurrence of excessive ptyalism, this prejudice was fostered by the Homeopathic profession and by manufacturers of various preparations designed to take the place of the objectionable drug, until the physician who had the temerity to prescribe a dose of calomel with his patient's knowledge was a *rara avis*. The market in time became flooded with remedies for nearly every ill that flesh is heir to, all branded with the magical legend, "This preparation contains no calomel." This guarantee was sufficient to insure an extended sale of almost any nostrum, provided it possessed ample purgative property, and relieved the attacks of indigestion denominated by the laity "biliousness." Blue mass fell into disrepute in the cases where it had formerly been esteemed a sovereign remedy; podophyllum, possessing as it does, cholagogue power superior to that of mercury, almost entirely superseding it. Mercury, even in the smallest doses, was supposed to embark on a lightning express for the osseous tissue as soon as it entered the individual's economy, and, safely ensconced therein, would successfully defy all efforts, however vigorous they might be, for its removal. The drug was relegated to the domain of the artisan, and the only use to which it was applicable in the household, was the destruction of bedbugs.

In time, through the efforts of some of the more progressive medical minds to gain a proper knowledge of the use of mercury, this universal antipathy gradually abated. Guided by the experience of the past, important modifications in its administration were adopted, and its use as a remedial agent were again manifest to our profession, who now recognize in it one of the most powerful adjuncts in combating disease. But, while this prejudice has to a great extent been eradicated, it still exists to a sufficient degree to cause considerable annoyance and disgust to the general practitioner, who encounters it almost constantly. A patient for whom I prescribed a dose of compound cathartic pills objected to taking them because they contained mercury, and he feared salivation. Another patient was exceedingly anxious to eliminate entirely from her system six grains of massa hydrargyri, taken for its cholagogue effect, and was very uneasy until a decided purgation had been produced by the use of Rochelle salts. She was quite decided in her opinion that the mercury should be gotten rid of immediately, or disastrous results would follow. A short time since, in conversation with an intelligent old gentlemen who had some slight knowledge of drugs, he informed me that nothing could induce him to take a dose of calomel, as he had seen too much of the evil resulting from its use; while admitting its efficacy for "biliousness" and syphilis, the prejudice engendered during its temporary ostracism had sunken too deeply into his nature to be uprooted at this period of his existence. Many other instances might be cited, but these are sufficient to illustrate my point.

This antipathy to the use of mercury is noticed in the greatest degree in persons in middle life and among the aged, these having acquired the prejudice in early life during the heat of the warfare against it. Of course, children to a certain extent imbibe the opinions of their parents, and the generation succeeding the one in whom the prejudice originated were infected with a portion of their ancestors' fallacy. With each succeeding generation, however, the error becomes less noticeable, and we may hope with a reasonable confidence that the progeny of those in active life to-day may so far exceed their fathers in intelligence as not to question the knowledge or ability of the physician who prescribes a dose of mercury.

Translations from Our Foreign Exchanges.

Translated for Medical News, from the French, by Dr. Illowy, Cincinnati, Ohio.

IODOFORM IN GONORRHEA.

M. Campana has used injections of iodoform in acute gonorrhea as well as in chronic cases. He uses a solution in glycerine. But the effects are more remarkable when the powder is applied to the diseased surfaces. It is thus that Dr. Timmermaus has obtained excellent results in cases of acute gonorrhea. Iodoform being insoluble in water, he suspends in 80 grammes of water, 4 grammes of powder of iodoform rendered impalpable by solution of the crystals in sulphuric ether. Having well shaken the mixture, fill a small glass syringe full with it. As it is important that the iodoform should come in immediate contact with the inflamed mucous membrane, it is necessary that the surface be cleansed of the secreted matter; this is done by having the patient micturate at the moment of operating. Have the patient lie down, and introduce the point of the syringe into the meatus urinarius in such a manner that it and the penis should be in a vertical direction to the body. Its own weight causes the imponderable powder to sink down toward the point of the instrument, which favors its introduction when we press on the piston. The syringe is slowly emptied. At the moment of withdrawing it, the meatus is closed by the thumb and index of the left hand, and with the right hand slight movements of pressure are made, and the liquid caused to circulate in the urethra, in such a manner as to bring it in contact with every portion of the diseased surface. The iodoform is deposited on the mucous membrane.

After four or five minutes the fluid is allowed to ooze out slowly, so as to avoid a removal of the powder. This operation should be repeated three or four times per day, and *repeated several times in succession.*

We do not see what benefit can be derived from several successive injections. It would be better, if it be desired to obtain a dense coating of iodoform on the urethral mucous membrane, to concentrate the injection. A second injection will not give the same result, except with great difficulty and at a great loss of time.

Whatever be the period of the disease, a prompt result is certain, diminution of pain: the iodoform perfectly fulfills its role of an anæsthetic. A second result comes without long delay, diminution of the inflammatory phenomena and change in character of the pus, whose abundance diminishes and which soon presents a much better aspect.

A cure is promptly obtained. In one case it resulted in five days.—(*Journal de Med. de Paris.*)

DYSMENORRHEA AND STERILITY.

Dr. Decoux publishes in the *Gazette des Hopitaux*, the following highly interesting case:

Mad. X. Aet 24 years. Married. Since five years has always had her courses irregularly and with great pain. She has never had any children. She has undergone innumerable treatments with unsatisfactory results.

Having cured several cases of dysmenorrhea and amennorrhea with the phosph. of zinc—I gave this remedy in the dose of 16 milligrammes per day, that is 2 milligrammes of phosphorus. In other words, two granules of 4 milligrammes each after breakfast, and two after supper. After 20 days the menstruation appeared without the least pain. I continued the same dose for a month, so as to act efficaciously upon two consecutive epochs; but the menstruation did not appear, the young woman was pregnant.

She was delivered of a girl, nursed it, and after 11 months the courses again appeared as painful as ever before. After eight months she placed herself again under treatment, and resumed the phosph. of zinc.

Things happened about as before. The courses appeared twice without pain, and the third time she became pregnant.

In the presence of these facts, the correlation so frequently existing between sterility and dysmenorrhea can not be denied; and finally the typical action of the phosph. of zinc acting on both conditions at the same time.

This fact is one to be signalized; I could find others of the effect of the phosph. of zinc, if I had noted a number of cases of hysteria, neuralgia, ataxia, anæmia, etc., where this remedy has given me unhoped-for results.

The phosph. of zinc does not act unless it is the crystalline form. Amorphous, it is ineffectual. Its preparation is so difficult, that with the exception of a well known make, only an impure article is found in commerce, partially or entirely ineffectual.

The Germans employ phosphorus on a grand scale. Dr.

Kapowitz, of Vienna, publishes a resume of 560 observations, referring principally to rachitis; and he affirms, as do Drs. Soltmann (of Breslau) and Heyenbach (of Basle), that phosphorus is the specific remedy for rachitis. What results will we not obtain, if, following their example, we extend the numerous applications of phosphorus by using the phosphate of zinc, whose action can, in some sort, be mathematically calculated, and the manipulation, which as against phosphorus pure, is so simple and attended with so little danger, as for is arsenic.

There is no accumulation to be feared, elimination being complete the third day, and if by mistake a large dose has been given, there need be no fear, because vomiting comes on at once, arresting the action of the remedy—something that does not happen with the majority of very active agents of the materia medica, and particularly not with the phosphorated oil.—(*Journal de Med. de Paris.*)

Selections.

Ovariotomy in Battey's Infirmary.

We are satified that a large number of our readers have no idea of the magnitude of this special work done by Dr. Robert Battey, of Rome, and a detailed description of it will, we are sure, be of interest to them.

While in Rome, Ga., some weeks since, we visited this infirmary, which is located on an elevation on South Street, overlooking the Etowah River. It consists of seven neat cottages of five rooms each, with beautiful grounds surrounding them. The place presents quite an attractive appearance. The furniture is plain, but neat. The bedsteads are brass with woven wire mattresses.

Since January 1st of this year, Dr. Battey has averaged one ovariotomy each week. These tumors, after being removed, are preserved in arsenic, stuffed and carefully put away. In the collection we noticed twenty of very large size; the largest one weighing, when removed, fifty-six pounds.

The success that has followed the removal of these large tumors has been something wonderful—not one of the cases having died. The doctor attributes this success, in a great measure, to the antiseptic precautions that he observes with every case.

The operation we witnessed was in a patient 32 years old. She had been remarkably stout and healthy up to September, 1884, when she noticed an enlargement of the abdomen. This continued to enlarge rapidly, and very soon she was treated for "dropsy," with drastic purgatives, until her general health began to fail, without any diminution of the enlargement. Since December 1st, she has not menstruated. She was admitted to the infirmary four days prior to the operation, and the only preparatory treatment given her was a compound cathartic pill given two days previous to the operation and an enema of warm water given on the morning of the operation. She was not allowed any food the night previous to the operation or the morning of it. It will be seen that at the time of the operation the stomach was empty.

The patient was placed on a short table with her feet resting in a chair, and was etherized with Squibb's ether by Dr. George R. West, one of the assistants.

The strictest antiseptic precautions were observed throughout. From the time the patient was etherized and the abdomen exposed, until the operation was completed, a spray of carbolic acid 1 to 40 was kept constantly playing on her from a large steam atomizer.

The incision was made in the median line with an ordinary scalpel, down to the sheath of the rectus muscle, when the remainder of the tissues down to the peritoneum were divided on a grooved director with scissors. When the peritoneum was reached, all cutting was suspended until the bleeding points had been secured by forceps, after which the peritoneal sac was opened and a trocar thrust into the tumor, when four and a half gallons of fluid, almost as black as tar, escaped. There were numerous adhesions to the abdominal walls, which were broken up with the hand, after which the pedicle was ligated with a stout silk ligature and the tumor removed. It weighed 47 pounds. On account of the adhesions there was considerable oozing of blood into the peritoneal cavity. This was arrested by packing the cavity with sponges, after which the cavity was thoroughly washed out with warm water and the wound closed with silk sutures. No drainage-tube was used. The dressing consisted of a small piece of old linen spread with carbolic cerate placed over the wound, with a compress of uncarded cotton. Over this was placed an abdominal bandage of flannel, which completed the dressing. The entire operation, from the beginning until the patient was removed from the table, consumed one hour and five minutes.

The after-treatment, as we are informed by Dr. Battey, consists chiefly in doing nothing. He says that the only thing required is an occasional anodyne enema, and a great many do not require that. Dr. Battey is ably assisted in this work by his son, Dr. Henry H. Battey, Dr. George R. West, Mrs. Battey, and his two students, Mr. Harry Huzza, of this city, and Mr. Glover. Mrs. Battey has entire charge of the nursing and general management of the patients after the operations, and, in our opinion, it is to her good nursing and kind and gentle treatment, more than to the strict antiseptic precautions, that the great success of the operations is due.—*Atlanta Medical and Surgical Journal.*

Fractional Doses.

DR. J. LEWIS SMITH recommends the following remedies as preferably given in small doses frequently repeated:

Chlorate of potash, in large doses, sometimes causes dangerous nephritis; given in doses of 5 to 10 centigrammes (1 to 2 grains) every half hour, it is safe and useful.

Croton chloral acts infinitely better when given in 6 to 7 centigramme doses every half hour in cases of neuralgia. Quinine hydrobromate and napelline, in small and frequent doses, spare the stomach and cure the neuralgia. Five centigrammes of caffeine, every 20 or 30 minutes, relieve cases of migraine. Tincture of digitalis, in drop doses, every hour or oftener, acts well in heart troubles. Liq. pot. arsenitis, in drop doses, relieves alcoholic vomiting. Jaborandi, in large doses, in Bright's disease is dangerous; the fluid extract, in drop doses, hourly, gives relief without danger. Dr. Smith hesitates to use this remedy in uræmia; but the nitrate of pilocarpine, 5 millegrammes, repeated every 15 minutes until salivation and sweating ensue, may be safely used. If depression be too great, we can give stimulants. One drop of tincture of nux vomica, given after meals, every ten minutes, relieves the headache when not due to central nervous causes.

Flatulence and epigastric pulsations of females at the menopause give way to centigramme doses of extract of Calabar bean every half hour. Tincture of belladonna, in small doses every half hour, acts well in cases of nasal catarrh and bronchitis, with abundant secretion. Feebleness of the heart in pulmonary œdema is also relieved by this remedy. Calomel, a centigramme every hour for 10 or 12 hours, causes syphilitic cephalalgia to cease. Regurgitations of milk, in nursing children, cease when we give, every quarter of an hour a teaspoonful of mixture containing 0.065 millegràmmes of calomel in a glass of water with a little lemon juice.

To combat urticaria, salicylate of soda, 10 or 12 centigrammes in a spoonful of water is the best remedy, and does not disturb digestion. The eruption is sometimes due to large doses of copaiba, which would not have acted thus if given in drop doses every half hour. An excellent remedy for acute urticaria is veratrine—half a millegramme every half hour.—*Journal de Médicine de Paris.* R. Z.

A Valuable Remedy for Headache.

THE *Physicians' and Surgeons' Investigator* desires to call the attention to a simple, and at the same time wonderfully efficient, treatment for many kinds of headache.

"We lay no claims to originality, nor do we know who the originator was, but having used it for a year or more, and in many cases with remarkable results, we feel disposed to give it our indorsement, and desire to make it more generally known. The remedy is nothing more nor less than a solution of the bisulphide of carbon. A wide-mouthed, glass-stoppered bottle is half filled with cotton or fine sponge, and upon this two or three drachms of the solution are poured. When occasion for its use occurs, the mouth of the bottle is to be applied to the temple, or as near as possible to the seat of pain, so closely that none of the volatile vapor may escape, and retained there four or five minutes or longer. For a minute or so nothing is felt, then comes a sense of tingling, which, in a few minutes—three or four usually—becomes rather severe, but which subsides almost immediately if the bottle be removed, and any redness of the skin that may occur will also quickly subside. It may be reapplied, if necessary, several times in the day, and it generally acts like magic, giving immediate relief.

"We believe this was the basis of a once popular nostrum. The class of headache to which it seems specially adapted is that which may be grouped under the broad term of 'nervous.' Thus neuralgic, periodic and hysterical headaches are almost invariably relieved by it. True, the relief of a mere symptom is quite another thing from the removal of its causes, yet no one who has seen the distress, and even agony, caused by severe and frequently recurring headaches (and who has not?), but will rejoice to be able to afford relief in so prompt and simple a manner; besides, it is sure to secure the hearty gratitude of the patient if he has suffered long. As to the *modus operandi* we have nothing more definite than a theory to offer, and that is, that the vapor being absorbed through the skin produces a sedative effect upon the superficial nerves of the part to which it is applied. We know by experience that its influence is not due to its power as a counter-irritant. We, however, know that it does act; and if we do not clearly see in what way it acts, that is no more than can be said of several other remedies which are firmly established in professional favor and confidence."—*Weekly Med. Review.*

Chicago Medical Society.

"SPECIAL VERSUS GENERAL STUDY IN MEDICINE,"

Was the title of a very interesting essay by Dr. Charles F. Sinclair. The following is an abstract: During the seventeenth and eighteenth centuries, there existed several schools of medicine, founded upon medical investigations stimulated by the discovery of the circulation of the blood by Harvey. These schools were founded upon theories. One school explained the processes of life as due to mechanical laws; another, as due to chemical laws; still another, as due to molecular movements; and finally, schools were founded which respectively promulgated the doctrines that life was due to an ether, or a spirit existing in the grosser material of the body. Thus we see that medical thought and investigation began to divide. This subdivision in thought led to separate investigations, and specialism was the result. This tendency, which is becoming more marked each day, may be called, perhaps, the distinguishing characteristic of recent medical study. The more clearly defined and generally recognized specialties to-day are surgery, diseases of the eye, diseases of the ear, diseases of women, diseases of children, diseases of the skin, diseases of the nervous system, diseases of the genito-urinary tract, including syphilis; diseases of the throat, heart and lungs, obstetrics and forensic medicine. The rapidity with which the tendency of special study is being developed is seen in the fact that five years ago one of our oldest medical schools gave special notice of only two of the special subdivisions I have mentioned. However, within three years this school has added a fourth year for the study of the branches mentioned. But it is objected that the student of a specialty should become practically conversant with the details of so-called general medicine. But it is a disastrous step for the young practitioner to try to cultivate a special practice from a general, if the old adage, "Once a general practitioner, always a general practitioner," is true. On the other hand, the specialist gains a footing more readily by confining himself to his specialty. It is further objected that the specialist is apt to forget that there are other important organs in the body beside the one to which he has given his attention. But this objection is puerile, when it is seen that the successful specialist must of necessity study the relations the different organs of the body hold to each other, and remember that any departure from the normal in one organ may be the result of disease in a more remote organ. The medical profession should look with favor upon this subdivision of medical work, because we see such vast accumulations of material in all the various departments of medicine that few would care to undertake, or have the ability, to even peruse our medical literature, much less master all the knowledge collected. In this day of rapid interchange of thought none can be found who can keep abreast of all the discoveries in the various departments of medicine. Another reason for the existence of the specialist is the fact that very few men can secure the expensive instruments necessary to be used in the treatment of the various diseases, nor are there many physicians who could skillfully use them were they so fortunate as to possess them. Many cases can not be successfully treated without these instruments. In our city, specialists should receive further development, because as they are clearly defined and faithfully adhered to in practice, proportionately does the city rank as a medical center.

Dr. F. M. Weller opened the discussion by asking why the subdivision of the practice of medicine into the special treatment of disease of the various organs should not be carried further into specialties for various specific diseases? Let us have physicians whose respective specialties shall be catarrh, ague, diphtheria, etc.

Dr. W. F. Coleman said that, while he agreed with the author in the main points in his paper, he thought it should rest with each individual whether he shall confine himself to special practice or emphasize it in general practice. It is advantageous to specialists that they should confine themselves to their chosen fields. But we should not judge of the benefits to be derived from specialists by the individual success of each practitioner, but by the extent each practitioner enriched our literature by the record of his investigations. It is thus that the eye and ear specialist, the specialist in throat and lung diseases, the laryngologist and others have done most to advance medicine.

"THE TREATMENT OF SYPHILIS"

Was the title of a paper read by Dr. L. T. Potter. He said that the treatment of syphilis must be threefold—hygienic, tonic and specific. By the latter is meant the administration of mercurial and iodine preparations. The profession seems to be greatly divided in opinion in regard to the methods of using these remedies and the length of time they should be employed. In scanning the literature on this subject the reporter was surprised to find that those high in authority differed as to these points. The reporter advanced two propositions: First, that neither the iodine preparations alone, nor mercury alone, can always be relied upon as effective in the treatment of syphilis, but that both are necessary to eradicate the disease; second, that the duration of treatment must be at least two years, faithfully carried out, no matter how mild an attack. In support of his first proposition, the reporter quoted Bartholow, Ringer, Jonathan Hutchinson, Keyes, Bumstead and Taylor as saying that mercury should be given in the primary and secondary stages of syphilis, and iodide of potassium in the tertiary stage. They all agree that both must be used to effect what is called a cure. In support of his second proposition, he quotes Van Buren and Keyes, Fournier, Bumstead and Taylor, as insisting upon the treatment extending over a course of two years or more. Divay says the minimum time for treatment is twenty-two months. The two-years course of treatment does not mean the continual administration of mercury or iodine, but at intervals the remedy may be discontinued for a short time, if it seems to have a debilitating effect on the patient. In the light of such unanimity of opinion of eminent authorities upon this question of duration of treatment, it is surprising that intelligent physicians will positively assure their patients that they are cured of syphilis at the expiration of a course of treatment lasting from four to six months! A physician who does so is certainly criminally negligent, and is a misanthrope of the worst type. Then it becomes all to impress upon the patients the importance of carrying on the treatment for at least two years.

Dr. E. L. Holmes commenced the discussion by saying he considered the paper very valuable, because the author lays so much stress upon the importance of thorough and long-continued treatment. One of the most important lessons he had ever received was to treat syphilis according to the plan the gentleman has advocated. Many years ago he had been taught this lesson by sad experience. It had been his lot to see many patients suffering from specific diseases of the eye long after they had been discharged by their physician as cured. He could not understand how any physician can believe it possible to cure syphilis without carrying out the treatment a long time. In many years' practice in this city he can not remember of having seen but three primary syphilitic lesions, and all these occurred on some portion of the eye. He saw one man who had on the upper eyelid a sore which resembled and was treated as a burn, until its course decided it to be a chancre. The man would not tell how he obtained it, but it readily disappeared under specific treatment. A great many diseases of the eye occur thus, and the physician is unable to find out how they arise. Many years ago it was taught that iodide of potash, if given in large doses, would effect a sure and speedy cure. But Dr. Holmes thought the treatment by large doses of iodide dangerous, as it ameliorates the symptoms so quickly as to cause the physician and patient to abandon the remedy too soon. In this country we do not have so good an opportunity to study syphilis as the Europeans. In Vienna and Prague, where the people live and do not pass from the observations of physicians, their statistics are more valuable and reliable than ours can be. He thought it best to give the patient all the mercury he can bear in the primary and secondary stages. Rub it in the skin and give it internally. Follow this up eighteen months or two years, and then give iodide of potassium later. Every three or four months give a course of treatment for years after. You will have no trouble impressing upon intelligent people the importance of long-continued treatment.

Dr. R. Tilley said he wished to refer to one point not touched in the paper, and that is, patients treated for syphilis are often told by their physicians of the importance of long-continued treatment, but they will not heed these warnings, and do not return. This fact will excuse the physician many times, as it is not in his power to carry out the treatment when he wishes; and thus physicians should often be relieved of the blame of not having treated their patients long enough. He did not think any intelligent physician would advocate treatment under two years, and he believed Keyes, in his last edition, extended the time of treatment to four years. Dr. Tilley was of the opinion that we can not do without mercury, and yet some in high places teach this doctrine. Those who try to treat syphilis without mercury are certainly responsible for later developments.

Dr. J. Zeisler thought the present treatment of syphilis is not scientific, and that there had been little advance in this direction in the last century. Cases are known in which, after seven years' treatment, symptoms of the disease returned. Take the case of Prof. Zeissl, who died last year. He was infected while opening a bubo several years ago. He certainly knew how to treat himself, and yet he died of cerebral syphilis. This does not look as though the treatment of syphilis is yet founded on a scientific basis. If the discovery of the bacillus of syphilis proves to be correct, it may prove the means of enabling us to treat syphilis scientifically.

Dr. G. C. Paoli said he is by nature a cosmopolitan, and always selects the best from the writings of all nations. A great many books have been written on this subject, among which Ricord's stand first. Ricord was a man of great talent, experience and powers of observation. He had unexcelled opportunities for study in the Paris Hospital when he was the chief physician. In regard to treatment, all agree that mercury must be administered for a long time. There are syphilitic cases in which mercury is contraindicated, namely, phthisical patients and in albuminuria, unless we believe syphilis is the cause of the albuminuria.

Dr. R. Tilley referred to one point introduced by Dr. Zeisler, who referred to Professor Zeissl as having died of cerebral syphilis, claiming that no one would doubt Prof. Zeissl's ability to cure syphilis. But the question is not whether Prof. Zeissl knew how to treat syphilis, but how did he treat himself? Cooper, in his book on syphilis, if he (Dr. Tilley) were not greatly mistaken, cites Prof. Zeissl as a type of those who used mercury sparingly. If that is so, and Zeissl used it only sparingly on himself, then the death of Zeissl from cerebral syphilis is a very important lesson, and bears materially on the subject under discussion.

Dr. J. Zeisler said he knew that in the case of Prof. Zeissl mercurial inunctions were made, but to what extent he was unable to say.

Dr. L. T. Potter closed the discussion by expressing himself as gratified at the amount of discussion which had been aroused; however, he was surprised at the statement that there had been little or no advancement in the treatment of syphilis. In this day of elegant pharmaceutical preparations and easy administration of mercurials and iodides, he thought there had been a great advancement, for pharmacy and chemistry have stepped in and given us preparations we did not use many years ago. Mercury should not be given when it is producing a debilitating effect.

The President, Dr. C. T. Parkes, presented to the society a specimen, with the following remarks: "I hardly know whether you would call this a pathological specimen or not. But you see a mass which was removed from a uterus, and it proves to be a sponge. A short time ago I was called to see a lady who had been treated by a physician who introduced a sponge tent into the cervix uteri, and instructed the lady to allow it to remain two or three days, and then pull it out. She attempted to do so, but the string broke and the sponge was not obtained. After three weeks of suffering, with a discharge per vaginam, I was called to see her. By digital examination I could not find any evidence of the sponge, the external os being closed so as to merely admit a probe. But I could not find any sponge by probing, so I introduced an Ellinger dilator, and soon seized the sponge with a forceps and brought it out. The symptoms present passed rapidly away, and the patient is now well. The point to be learned is, that when a physician introduces a sponge tent, he himself should remove it.

The society then adjourned.

Hard to Kill.

On August 10, 1885, I was called on Stone Hill by telephone to see a dying man. My protestation that I could be of little or no good to a person in that condition proving of no avail, I drove to Stone Hill, nearly five miles from Warren, occupying nearly an hour. Found my man lying by the side of an oil derrick, nearly covered with blood, his head being supported by a companion, who gave me the history of the accident. Henry Sutton, aged 42, and companion were agitating an oil well, and when Sutton saw oil escaping he told his companion to attend the engine and he would shut off the oil. The engine was not stopped soon enough, as the polishing rod was snapped off in the crown pulley, and while Sutton was turning off the stop-cock, using his right hand, and leaning his body over toward his left to escape the jet of oil, the polishing rod (an iron bar 20 feet long, three-fourths of an inch in diameter and blunt at both ends,) came down from top of derrick 74 feet high, and struck Sutton one and one-half inches back of and two and one-half inches below the right ear, passing under the sterno c. mastoid muscle, and obliquely across the neck to the front, striking the manubrium on its under surface, and crossing over struck the cartilage of first two ribs, nearly, if not quite, separating them from sternum, came out of chest one-half inch below and one inch to the right of nipple of the left breast, struck the left thigh six inches below the anterior superior spine of ilium over the rectus femoris muscle, which it penetrated, and came out at the lower and outside of thigh five inches from the external tuberosity of femur, penetrating ground about eight inches. Five feet eleven inches of rod passed through neck and chest. Entrance to exit of chest wounds measures sixteen inches, and thigh wounds eleven inches apart. I made a stretcher out of two-inch boards (stretcher weighing more than the man did), and with the help of four men carried him down the mountains nearly a mile to nearest house, where his clothing was removed and his wounds antiseptically dressed, and liberal doses of brandy and morphia were administered, hot bottles placed around him and used active measures to get him over shock. He rallied and maintained he was going to get well, and would not talk of dying. The first two days after injury he suffered intense agony at every attempt at swallowing. For three days I thought he would die from inflammation of the left lung. Every cough, though under the influence of morphia, seemed to pain him intensely. On the sixth day after the injury his temperature was normal, and pulse 78 beats per minute. Temperature and pulse have remained normal ever since, and yesterday, the 25th, he was sitting up, with all the indications of gaining strength rapidly. Now when I hear of the case recorded in Dalton's Physiology, of the man with a crowbar through his brain, I will relate how the man with *luck* and *pluck* escaped with his life from equally as wonderful an injury.—*Richard B. Stewart, M. D., of Warren, Pa., in Philadelphia Medical and Surgical Reporter.*

The Cholera Conference in Berlin.

The report of the second conference upon cholera, held in Berlin in May of the present year, has been published. The discussion was almost interminable (the report of it fills seventy-seven closely printed pages, somewhat larger than a page of *The Medical Record*, and is issued as a supplement to the *Berliner Klinische Wochenschrift* for September 14 and 21, 1885), but it lacked the interest of the one of last year, as there was little of novelty developed during its progress. The first subject for discussion was the new discoveries made since the last session regarding the cholera bacteria, especially as to the forms under which they preserve their vitality. Koch spoke at great length, and defended his position against the attacks which had been made on him by Klein, Finkler and Prior, and others. He endeavored to show that their methods of investigation were faulty, or that they had not been able to distinguish between his bacillus and other forms of microbes. As to the claim of priority made for Pacini, he thought it very doubtful whether this observer had really seen the true cholera bacillus, and said that he himself had never heard of the alleged discovery until long after he had published the report of his own investigations. In discussing the question of disinfection, he expressed his decided preference for carbolic acid over any of the metallic salts. The speaker said that a permanent form of the cholera bacillus had not yet been discovered, and perhaps there was none. But such a form was unnecessary, since the bacillus would live in moist earth for five months or longer when the conditions were otherwise favorable. A discussion then ensued between Koch and Von Pettenkofer, the latter maintaining that the characteristics of the different cholera epidemics furnished conclusive evidence that the cause of the disease could not reside in a specific bacillus. He thought that cholera was no more contagious than was malaria. The question of experiments upon animals was also discussed, but without developing any points of especial interest.

The second and third points proposed for discussion were that of the spread of the disease through pilgrimages and by ships, and the influence of the soil, air and water upon this spread. Koch said that the facts in support of the view that the disease was spread by human intercourse were incontrovertible, and he thought that there lay a danger to Europe in the railways now being built in Central Asia, on the completion of which India and England would be separated by a journey of only eleven days. He expressed himself further as of the belief that one attack of cholera confers immunity against subsequent attacks, at least temporarily. He explained in this way the fact that cholera is spread in waves along the paths of human travel from its endemic seat toward Northwest India. Each epidemic in these parts, he said, left behind it an immunity which existed for three or four years. At the end of that time the communities were no longer protected, and another invasion of the disease occurred. Bryden had called attention to this periodic overflow of the cholera, but had wrongly attributed it to the influence of the monsoon. Koch thought that the history of an epidemic on the ship Matteo Bruzzo was a sufficient answer to Von Pettenkofer's theory. In this case the disease appeared on the thirty-fourth day, and the last case declared itself on the fifty-second day after the vessel had left port. If now the contagium could exist only in the ground, the ship not having touched land since starting, it was necessary to believe that the incubation period of the disease was from thirty-four to fifty-two days in length. The speaker thought that immediate contagion was rare, but the intervention of clothing, or some other suitable soil for the development of the bacillus was necessary. Virchow said that, as far as he was aware, no facts were in existence in proof of the theory that cholera germs could be carried directly to man from the soil, as could the malarial poison. He thought, however, that the opposing sides in this controversy could reach some agreement if one would admit that cholera bacilli could grow in the earth and the other that they could grow in agar-agar and in soiled clothing.

Then Koch spoke at great length against the assertion that the rise or fall in the level of the subsoil water bore any relation to the severity of an existing cholera epidemic. Von Pettenkofer defended his views on this point at equal length, but no new arguments were brought forward on either side.

The last question brought forward for discussion was that of the measures proper to be taken against the cholera, but here, as elsewhere in the conference, nothing new was developed. Koch enumerated various measures of disinfection, cleanliness, thorough cooking of food, etc., and repeated that he considered carbolic acid as the most practicable disinfectant that we have at our disposal. Virchow remarked that if a strict quarantine were possible, as, for example, on an island, he would be in favor of it, but he regarded a land quarantine as wholly impracticable. Von Pettenkofer said that when the cholera visited Bavaria in 1836, it was universally regarded as non-contagious, and people acted upon this belief. Of course, there was no disinfection, but further than that no special efforts were made in the direction of cleanliness, and no attempt was made to isolate the sick. Yet, notwithstanding all this, Bavaria, and especially its chief city, Munich, had never been visited by so mild an epidemic as this. He thought that even if measures of thorough disinfection and isolation could not be carried out, there was no occasion for alarm or special anxiety. The question of the diet of individuals in time of an epidemic was broached, but Koch said that as yet no special rules could be laid down.

In the course of his remarks Koch took occasion several times to attack Cunningham's views, and said that these were not held by many of the other medical men in India, but that they were afraid to express their real convictions if opposed to those of Cunningham, as they would be in danger of losing their positions. Von Pettenkofer defended Cunningham's character, but Koch repeated his assertions several times. If these charges be true, their public statement may lead to a reform in the Indian Medical Service, and then the second cholera conference will have accomplished something after all.

After an exchange of compliments and of apologies for any acrimonious remarks dropped in the heat of debate, the members bade adieu one to the other, and the conference was at an end.

Besides those mentioned, Kersandt, Fränkel, Pistor, Günther, and others participated in the debates.—*Medical Record.*

Incision of the Pericardium in Purulent Pericarditis.

At a recent meeting of the Moscow Russian Medical Society, Dr. Ekaterina A. Mikhailova communicated (Meditz Obozr., Fasc., 1885) an interesting case of purulent pericarditis of traumatic origin, treated by tapping and incision of the pericardium, which is summarized in the *London Medical Record* (*Boston Medical and Surgical Journal*).

The patient, a cook, aged 35, who had for many years suffered from cardiac palpitation and rheumatic pain in the right side of the chest, was admitted to the Staro-Ekaterinensky Hospital five days after a fall from considerable height. For the first day after the accident the patient had remained in an unconscious state; on return of consciousness on the second day she tried to get up and to resume her usual work, but had found herself unfit for anything on account of giddiness and intense attacks of palpitation.

On admission she looked pale, anemic and exhausted; the tongue was whitish, moist; pulse small, 90; temperature 39° C. The chest was normally developed, its excursions being equal on both sides, though not energetic. The apex-beat was not visible, and hardly perceptible to the touch. The cardiac dullness commenced from the third rib; its left border passed slightly beyond the nipple line, the right reached the median line, and the lower extended downward to the sixth rib. The heart-sounds were feeble, but otherwise normal. A dull area was detected over the posterior aspect of the right side of the chest, extending from the scapular angle down to the lower border of the lung. Auscultation revealed there enfeebled vesicular respiration. The patient could not lie on her right side, on account of the dyspnea being increased.

For the next eight days, the patient's state remained much the same; on the ninth day there appeared intense dyspnea, and cyanosis of the lips and nose; the pulse became much smaller and intermittent, 120; the urine contained much albumen, pus-corpuscles, and hyaline casts. On examining the patient on her back, the cardiac dullness now commenced from the lower edge of the second rib, extended on the left to the anterior axillary line, and went on the right slightly farther than the right edge of the sternum, the lower border remaining at the sixth rib. The apex-beat could not be felt any more; the heart-sounds were clear, but very feeble and intermittent. On the fourteenth day, edema of the subcutaneous tissue in the precordial region was noticed.

The cardiac symptoms steadily growing worse, on the fifteenth day aspiration with Dieulafoy's apparatus was performed in the fourth intercostal space, and 120 cubic centimétres of fluid drawn off. The first eighty cubic centimétres consisted of pure cream-like pus, the remaining forty almost entirely of blood. Immediately after the puncture, the patient was in a state of semi-collapse, but on the next day there was noted a slight improvement in the subjective symptoms. On the seventeenth day the cardiac dullness reached up as far as the clavicle, the pulse became scarcely perceptible, the dyspnea extreme; the lungs were full of mucous râles. To satisfy the vital indication, incision of the pericardium was decided upon and performed by Drs. P. P. Minin and Hindenburg. It measured about two centimétres in length, its spot being close to the left edge of the sternum, in the fourth intercostal space. About two fluid pounds of fetid blood-stained pus escaped. After washing out the pericardial cavity with boracic water (at 38° C.), a drainage-tube was inserted, and the carbolic gauze applied. Striking relief immediately followed; the dyspnea diminished, the pulse became regular and 90, the cardiac dullness normal. However, in spite of three successive subcutaneous injections of ethereal tincture of valerian, the cardiac action remained low, and eighteen hours after the operation the patient died.

Analyzing the details of the case, Dr. Mikhailova arrives at the conclusion that she had to deal with an instance of idiopathic purulent pericarditis caused by injury. Pointing to the fact that in her case (as in the case of Partzevsky, for which see the *London Medical Record*, February, 1883, p. 32) the operation was resorted to too late, the author states her belief that incision of the pericardium in cases of purulent pericarditis may be followed by a favorable issue only when it is undertaken in presence of a healthy cardiac muscle. On the other hand, however, she seemingly admits Professor Rose's dictum that, as a rule, incision of the pericardial sac in purulent pericarditis has the same therapeutic value as tracheotomy in certain affections of the respiratory organs.

At the post-mortem examination, there were found fatty degeneration of the cardiac muscle, dilatation of the pericardium, fibrino-purulent exudation, with admixture of blood in the pericardial sac, right hydrothorax, total obliteration of the left pleural cavity, edema of the lungs with purulent bronchitis, marantic thrombosis of the pelvic veins, and of the vena spermatica interna dextra, ischemic necrosis of the right kidney; the same, but in a less advanced stage, in the left kidney. A search for bacilli in the heart and pericardium gave negative results.

Cocaine in Venereal and Syphilitic Disorders.

THE experience of Bono with cocaine in affections of the genital system as published by the *Gazz. delle Cliniche* (Therapeutic Gazette), can be conveniently epitomized as follows:

1. An injection of a few drops of a two per cent. solution of cocaine removes promptly the pains felt in acute gonorrhœa during micturition and erection. The injection has to remain in the urethra for at least five minutes, and to be repeated four or five times daily.

2. This cocaine injection is unrivaled in rendering caustic injections or the introduction of the catheter painless

3. The burning pains of blennorrhea in women yield invariably to small cotton tampons saturated with a two per cent. solution of cocaine, or to the application of a five per cent. solution of cocaine, or to the application of a five per cent. cocaine ointment.

4. Cocaine facilitates the examination of urethra and bladder with the bougie and the endoscope.

5. It allows of a painless cauterization in balanoprostatitis.

6. Pointed condylomata can be painlessly cauterized, excised, or scraped out with its aid.

7. In cauterization and excision of primary syphilitic affections, cocaine evinced very desirable analgesic virtues of a sufficiently long duration.

8. Taken internally during an antisyphilitic treatment, cocaine did not present any appreciable effects.

9. Its local effects are highly beneficent in syphilitic ton-

silitis and in stomatitis mercurialis, and difficulties of deglutition.

Bono refers also to its analgesic properties in acute painful eczema, pruritus vulvæ, sore nipples and burns.

As Bono's observations were confirmed by Blumenfeld, Frankel, Pick and Neisser, they are entitled to attention and confidence.

A Clinical Lecture in Gynæcology.

Delivered at the College of Physicians and Surgeons, New York.

BY T. GAILLARD THOMAS, M. D.

CASE I.—GENTLEMEN: The first patient this afternoon is Mrs. E. C., twenty-two years of age, and a native of the United States. She has been married three years, and has had no children, but has had three miscarriages.

I ask her how long she has been sick, and she replies that she has never been sick; and, as you look at her, you will believe her statement, for she has a strong and healthy appearance. So I ask her next why she has come here to see us, and she answers, because she is anxious to bear children; and, though she has been pregnant three times, she has had a miscarriage every time. She passed two years of her married life without becoming pregnant at all, and then became so, but had a miscarriage at the end of three months. She knows of no cause for this miscarriage. In her second pregnancy she miscarried a little short of three months, but without any known cause. She became pregnant a third time, and again miscarried at about the same period as before. At none of these times does she remember to have had a fall or to have made any violent effort, or any slip or misstep, or to have had any sudden fright, or anything else which she could assign as a cause of her miscarriages. All three of them have taken place within the past year. She complains now of no headache or backache, or any other pain, and she walks easily and seems to be in perfect health.

Now, I show this case to you not because it is a remarkable one, for you will hear such a story as this over and over again, but because I like to show you here, not cases that are rare, and such as you will seldom see elsewhere, but rather cases that are types of classes of such mild conditions as you will often meet with, but which will cause you much trouble.

The history you have just heard here is one that you will hear repeated by patients again and again till you get sick of hearing it, and a patient will come back to you eight, ten, or twelve or more times, perhaps, complaining of repeated miscarriages every time, and appealing to you to help her, and, if you fail in your efforts, apparently holding you responsible for her misfortune. And let me tell you here that among the nineteenth-century women there are two classes—one, those who desire, above all things, to become pregnant and bear children; and the other, those who are anxious, above all, not to bear children. Now, this woman is thoroughly unhappy because of her sterility, and she is exceedingly anxious to bear children. Now, forget for a moment where you are, and let us suppose that your patient is a lady of a great deal of wealth, and the disposition of a large estate, perhaps, depends on her having a child, and you can imagine how unhappy she would be if she had only repeated miscarriages, and how important it would be for you to find out and, if possible, remove the causes of this mishap. In general, it may be said that miscarriages occurring at the third month are due to one of two causes more than to any others.

But first let me tell you, what you already know, no doubt, that out of one hundred cases of miscarriage more than seventy-five will occur at the end of the third month, and the next largest number at the end of the second month, and the next at the end of the fourth month, and the rest of the number will be scattered about in all the other months. That is to say, that over seventy-five per cent. of all cases of miscarriage occur at the end of the third month of gestation. There are two explanations of this fact. The first reason for it is, that at this time the placenta is just becoming thoroughly formed, while the chorion is disappearing, and the manner of the nutrition of the child is changing, and, instead of being localized in the chorion, which receives its blood from the whole intrauterine surface, it is becoming localized in the placenta, which draws its nutrition from a limited surface of the uterus; and, as the chorion degenerates and the placenta is forming and attaching itself more intimately to the uterine walls, the changing from the chorionic to the placental nutrition of the fœtus is marked by a strong tendency to miscarriage. In the second place, you know that at the end of the third month the uterus is becoming so large that it is just beginning to rise out of the pelvis, and at this time, as the body of the uterus rises above the brim, if its supports happen to be a little weak, it is very apt to turn over on itself, either to one side, or forward, or backward ; and by this means the nutrition of the fœtus is deranged, and hence this is a very frequent cause of miscarriage at this time.

Now, we will go back to the point at which I digressed and where I was saying that there are two great causes, not to mention the numerous possible causes, of habitual abortion in certain women. 1. A posterior displacement of the uterus which interferes with the proper development of the organ. 2. Syphilis. These are the two main causes ; now I will give you some of the others, merely in order to impress these two on your memories. You will sometimes find in a woman who has previously borne children that a slight single unilateral laceration of the cervix will become very irritable during pregnancy, and the reflex irritation thus caused will set up uterine contractions and bring about the expulsion of the fœtus ; and this will cause, perhaps, three or four abortions in the course of a year. Again, large granules will form on the cervix of some women every time they become pregnant, and these will set up enough irritation to cause an abortion. These granules sometimes resemble an epithelioma in appearance, and they are frequently mistaken for this by inexperienced physicians ; but that they are not such is shown by the fact of their disappearance after every abortion. Again, mere accidental causes will produce a miscarriage in some very nervous women, and these are commonly spoken of as women who "habitually abort." But this term is too frequently applied where the physician has overlooked the true cause, and it is therefore usually only a cloak for his ignorance. Some time ago I had my attention called to a peculiar case of abortion from purely nervous influences as the first cause. The patient was a lady near the fourth month of pregnancy, who was traveling in the railroad cars with her husband. As the engine drew the cars suddenly into a dark tunnel, the roar of the train, multiplied by the echoes of the walls of the tunnel, awoke her from a sound sleep ; the noise and the darkness made her believe that an accident had happened, she became greatly frightened, very soon after labor pains came on, by the time she had reached the end of her journey the uterus was contracting violently, and soon after arriving home she aborted. I was fortunate enough to preserve the placenta, and, upon examining it, I found that she had a small placental apoplexy, and a clot of blood of the size of a walnut had formed and separated the placenta from the uterine wall, and from this focus an irritation had spread till it brought on uterine contractions which ended in an abortion.

So, also, it may be caused by a woman's measuring the height of a chair with her eye, and then unexpectedly sitting down, to find it three or four inches lower than she had supposed it to be, the sudden jerk being sufficient to bring on uterine contractions. Instances are on record where such a simple matter as blowing out, instead of snuffing out, a candle, by reason of the disagreeable odor of the smoke, has caused a miscarriage; and I do not doubt that such trivial circumstances will sometimes induce it. These are all exceptional cases, and hardly to be considered. But the rule is that, in the great majority of cases, where a woman has repeated miscarrages at the third month, you will find upon examination either a posterior displacement of the uterus, or that there is evidence of constitutional syphilis in the father or mother; or you may find both these conditions.

Now, this woman's husband is not here, so we can not examine him at present for symptoms of syphilis; but she says he is a healthy man, and has promised to bring him here to our clinic next week, so that we may inquire into his condition for ourselves. I think he will come, for he, as well as she, is anxious to have offspring. So we will have to wait till then to determine whether this cause for the repeated miscarriages exists here.

But there is another cause than this which will account for the miscarriages in this case. When I make a vaginal examination with this woman standing in the erect posture, I find that the uterus is bent backward toward the hollow of the sacrum, so that the greater part of the organ lies posteriorly to a line drawn perpendicularly down through the center of her body. You may ask if I think that this slight degree of displacement backward is sufficient to account for these repeated miscarriages; and I reply that I think this is a sufficient cause. Then you may ask: "How do you suppose that this insignificant cause can produce such a result?" It would not as it is now, for that uterus is not badly displaced, but is lying only a little posterior to the central line drawn perpendicularly through the body, and, if is would keep the same position as now, it would be of no account either in a pregnant or non-pregnant woman, and no miscarriage would take place. But I will show you what occurs after pregnancy in such a case as this. At the end of the first month the uterus is slightly enlarged and its increased weight has caused it to bend over on itself still more, and so the posterior displacement is a little greater than before. At the end of two months the displacement is so great that the axis of the uterus forms almost a right angle with the perpendicular line drawn through the center of the pelvis; but even now there is no interference with utero-gestation, and the pregnancy goes on. At the end of the third month, however, when the body of the uterus has increased so much in size that it fills up the cavity of the pelvis as it lies displaced in the hollow of the sacrum, the uterus tries to rise up out of the pelvis, and the cervix does go up, but it can not pull the body up after it, because it is held down by the promonotory of the sacrum, and only some lucky accident can release it. The rule is, however, that the cervix rises up, but nothing can get the uterine body out of the hollow of the pelvis; and yet, under certain circumstances, the organ will go on developing for four or five months, perhaps, without interference with the nutrition of the fœtus. But usually at the end of the third month the uterus feels the interference with its development, and so it begins to contract, and the cervix opens, and labor goes on until the fœtus is expelled. Three months after, the woman goes to doctor, perhaps, and asks him the cause of her miscarriage; and he examines her and finds the cervix all right and the uterus lying in the position I described to you as existing in this case at present, with only a slight posterior displacement, and he is at a loss to account for her misfortune. But the real cause of all was that, at the beginning of pregnancy, the uterus was lying a little posterior to a line running perpendicularly through the center of the woman's body; and you will almost invariably find that the slightest displacement posterior to this line will cause a miscarriage at the third month. Now, this exists in this woman at present, and it may possibly be the cause of her miscarriages; but before deciding I will examine her husband also. If I find that he has had constitutional syphilis, I will say that I do not know whether this displacement of the uterus is the main cause or not; but I will first remedy the condition I find already existing in the woman, and then I will treat the husband for syphilis, if I find it necessary, and I will try to keep him and the woman apart for a number of months, until I think he is entirely well and can impregnate his wife without transmitting the disease to the child. Even if I find syphilis in him, I will nevertheless treat the difficulty I find in her at the same time.

After the woman has again become pregnant I would watch her carefully as she advances, and have her come to me every four or five days or, at the longest, once a week, that I might see if every week of utero-gestation was increasing the displaced condition of the uterus. If, by the end of the second month, I should find it bent farther backward than at the end of the first month, I would place the patient on her side or in the knee-chest position, and with my fingers, push the uterus over into its proper place, and put in a pessary to keep it in position. Supported in this way, the uterus is able to rise up out of the pelvis as it enlarges, and pregnancy is therefore allowed to go on. If you try this plan of treatment in such cases, you will often have reason to feel well satisfied with the results.

Let me tell you of a case I treated twenty-five years ago. A lady came to me who said that she had had twelve miscarriages in succession. I examined her, and found just such a condition as we have in this case. None of the doctors who had previously examined her had discovered the presence of this displacement, because she had gone to them after each miscarriage, when the uterus had returned to its proper position. She was almost insane from these repeated disappointments. So, after she had again become pregnant, she came to me at the end of the third month of gestation, and I easily recognized a decided posterior displacement. To remedy this, I pushed the body of the uterus up above the promonotory of the sacrum, and put in a pessary to keep it there, and I had her return every two or three weeks, so that I might adjust the pessary and see that everything was progressing favorably. She was delivered of a living child at full term, and she went on from that time through four successive pregnancies without having a single miscarriage, and this plan of treatment was carried out each time. Now, I do not say that a single case proves the efficiency of this plan any more than that "one swallow makes a summer."

But I have had a whole flock of just such "swallows," and they have abundantly established the effectiveness of this treatment. I am talking now, remember, only of miscarriages occurring at the end of the third month, but they will form 75 to 80 per cent. of all the cases you will meet with. The moment I see a woman who tells me that she aborts regularly at the end of the third month, I am so certain of the cause that I say to myself that she has either a slight or a great displacement of the uterus, or else there is syphilis in the family. So, in case I find no displacement of her uterus, I always look carefully for any signs of syphilis in the husband or in the woman herself. And remember, gentlemen, that syphilis sometimes creeps into the system of a perfectly virtuous woman, and no one knows how it got there. Syphilis certainly develops accidently sometimes, and I think it is a mistake for some physicians, who ought to know better, to laugh at the statement of a man who, when asked where he got his syphilis, says he caught it from a privy or in some other unusual way. I see nothing to laugh at in such a statement, and it seems to me that the joke is entirely out of place, for I do not see why the disease may not occur from such exposure. I have known of the case of a sewing woman in this city who became infected with a true Hunterian chancre, followed by a secondary eruption, apparently in the following way: She accidentally pricked herself in the breast with a pin which had probably retained upon it syphilitic virus from the hand of the woman in France who had made it, and who had doubtless just been dressing her chancre previously to sticking the pin on the paper to send to this country, where it was destined to infect her innocent sister.

Now a few words in regard to another class of cases besides those which occur regularly at the end of the third month. In this class the mother passes safely through the early months of pregnancy, but at the end of the seventh month, perhaps, she notices that the movements of the child *in utero*, which have previously been vigorous enough, are now becoming more feeble, and the next day they are feebler still, and so on till in a few days they have ceased altogether, but she goes on to full term and then brings forth a dead child. This thing may have been repeated six or eight times before she comes to you to seek for the cause and its cure. If you examine the placenta at the completion of one of these labors you will almost invariably find that it has undergone a fatty degeneration. The only way of preventing this woman from constantly bringing forth stillborn children is to tell her to watch carefully during the latter months of pregnancy, and to let you know as soon as she feels that the child's movements are beginning to lose their vigor, and then you shall immediately induce labor and bring on a premature delivery. If it is in the seventh month, you may be able to preserve the life of the child, and your success will be more assured if delivery can be postponed till the end of the eighth month, or for eight and a half months. But the rule should be, the moment you find the child is in danger of death by reason of the degeneration of the placenta, bring on labor.

Selected Prescriptions.

IODISED PHENOL IN THE TREATMENT OF WHOOPING-COUGH.—Rothe (*Memorabilieu*) announces his continued satisfaction with carbolic acid as a remedy for whooping-cough, after fifteen years' experience with it. The formula employed is as follows:

Carbolic acid, Alcohol, } each, .	7½ grains.
Tincture of iodine, . .	5 drops.
Peppermint water, . .	750 grains.
Tincture of belladonna, .	15 "
Syrup of diacodium, .	150 "

A teaspoonful is to be given every two hours, the administration being continued until the paroxysms entirely disappear.

ASTHMA.—

Tinct. lobelia, . . .	oz. j.
Ammon. iodidi, ...	dr. ij.
Ammon. bromidi, . . .	dr. iij.
Syr. tolu, ...	oz. iij.

M. Sig.—A teaspoonful every one, two, three or four hours.

Dr. Bartholow says the above gives "relief in a few minutes, and sometimes the relief is permanent."

SKULLCAP FOR ENURESIS is highly recommended by Dr. Wimermark in the *New York Record.* For a child of twelve years, he gives one teaspoonful of the fluid extract, t.i.d.

COUGH MIXTURE.—(Cook County Hospital, Chicago.)

Morphiæ sulph.,	gr. i.
Tr. aconite,	gtt. xvi.
Potass. nitrate,	dr. j.
Acid hydrobrom., dil.,	gtt. xvi.
Syr. ipecac,	dr. ij.
Syr. scilla,	dr. vi.
Water,	q. s. ad. oz. ij.

Teaspoonful every three or four hours.

CHRONIC DYSENTERY.—(*Ibid.*)

Morphiæ sulph.,	gr. j.
Ferri sulph.,	gr. xvi.
Sulph. acid, dil.,	dr. ss.
Magnesiæ sulph.,	oz. ss.
Water,	q. s. ad. oz. ij.

SAGE'S CATARRH REMEDY.—

℞. Hydrastis canadensis,	grs. v.
Indigo,	grs. ss.
Camphoræ pulv.	
Acid carbolic,	*aa* grs. ij.
Sodii chlorid,	grs. l.

Powder the camphor by means of a drop of alcohol, and mix with the salt previously reduced to a moderately fine powder; rub the indigo and carbolic acid together, mix with the salt and camphor, and lastly add the powdered hydrastis, and intimately mix, without much pressure, in a mortar.—*Chicago Med. Times.*

A MIXTURE FOR WHOOPING-COUGH.—A contributor to *Un. Med.* prescribes the following formula:

Tincture of belladonna,	5 drachms.
Tincture of valerian, Tincture of digitalis,	each, 75 grains.

For a child two years old, begin with five drops daily; increase the amount by five drops each day, until it reaches thirty drops. The initial dose and the increment are ten and fifteen drops, respectively, for children between two and five years old and for patients who are still older. If the valerian is not well borne, tincture of musk may be used instead. Where nervous and spasmodic symptoms predominate, the author resorts to chloroform, giving to children between two and five years old from six to thirty drops daily, in two ounces of gum julep.

FOTHERGILL ON HEPATIC DISORDERS.—The functions of the liver and kidneys are closely linked together; and in those derangements where the urine has a thick sediment and the bowels are disordered, the old-fashioned doctor who shook his head and oracularly uttered, "Liver!" was not such a fool as it has recently been the rule to regard him. First cut down the amount of albuminoids eaten or drank, in order to reduce the demand upon the liver; then sweep away the waste from the blood by a pill at bedtime:

Pulv. pip. nig.,	grs. ij.
Pil. col. comp.,	grs.

and in the morning:

Sodæ pot. tart.,	ʒj.
Sodæ sulphatis,	℥ ss.
Tinct. zingiberis,	ʒ ss.
Inf. gentian,	℥j.

with an equal quantity of boiling water, so as to make the draught as hot as can comfortably be borne. Let this be done twice or thrice a week, till the tongue is clean. When that is done, give the

Sodæ sulphat.,	ʒ j.
Sod. et pot. tart.,	℥ ss.
Tinct. nuc. vom.,	gtt. vj.
Inf. cascarillæ,	℥ j.

Ter in die before meals, and the pill twice a week.

If there be general asthenia, do not proceed to give iron until the tongue is thoroughly clean, the water clear, and the appetite good; and then commence with two or three drops of the dialyzed iron once a day, after food. In other cases, where there is only slight constipation, with deposits in the urine, especially after meals, give the old-fashioned dinner pill:

Pulv. ipecac,	grs. j.
Pulv. capsici,	grs. ss.
Ext. cinchonæ,	grs. iij.
Pil. a. et myrrh,	grs. j.

every day after dinner. It will be found very efficacious. If this dinner pill does not act sufficiently, give the morning laxative twice or thrice a week, so long as the bowels require it. Then, as to the union of laxatives with tonics, it is well often to combine these two agents. In convalescence, tonics never act genially, if there be not at the same time regular and sufficient action of the bowels; so, add sulphate of magnesia or sulphate of soda to the tonic—

Mag. sulphate,	grs. xx.
vel soda sulpha.,	ʒ j.
Quin. sulph.,	grs. j.
Ac. phosp., dil.,	m. xv.
Inf. gentian,	℥ j.

Ter in die before meals, and ten minims of dialyzed iron after dinner, daily, will usually give good results; or,

Mag. sulphat.,	ʒ j.
Tinct. fer. mur.,	m. x.
Liq. strychnia,	m. iv.
Inf. quass.,	℥ j.

Ter in die; forms a less expensive tonic, of much utility.

But in this use of laxatives, with occasional mercurials, avoid the pitfall of letting the patient eat with unlicensed abandon.

Now, in conclusion, let me tell the student to strive to see what are the indications for treatment; what, in this case, calls most imperiously for attention. He is taught too exclusively, at present, to look at disease from a deadhouse point of view. To make a diagnosis which would be corroborated in the deadhouse is the great matter! Yes, so it is at a medical school; but in practice for yourself, remember that a living, grateful patient, who has got well under your care, is worth far, far more to you than any amount of accurate diagnosis—which, so far as other persons and their opinions are concerned, is as voiceless to further your interests as the tombstones in the churchyard which mark your failures.—*Indian Med. Jour.*

Hypertrophied Tonsils.

DR. A. W CALHOUN, of Atlanta (*Atlanta Med. and Surg. Jour.*), in a clinical lecture says that:—

One among the most frequent cases of chronic deafness is the long continued irritation in the Eustachian tubes from hypertrophied tonsils in children. It is a disease peculiar to childhood, beginning very early in life, and is frequently congenital and hereditary. Almost always the disease attacks both tonsils—very rarely does it attack only one.

In nearly all such cases, characteristic symptoms accompany the disease, viz.: difficult breathing, especially at night, sleeping with the mouth open because of the obstruction in the posterior nares, caused by the enlargement, muffled voice, more or less chronic pharyngitis, and as the result of breathing through the mouth, cracked and broken teeth. The alternate contact of hot and cold air upon the teeth causes the disintegration of them, but the great danger is the deafness that usually follows long-continued hypertrophied tonsils, by reason of the extension of the inflammation into and more or less pressure upon the mouths of the Eustachian tubes.

Children sometimes outgrow the disease, but while they are outgrowing it the danger to the hearing is constantly increasing; hence the necessity of active treatment in all children who have enlarged tonsils and the necessity of disregarding the advice to "let them alone, they will outgrow it."

It is just as necessary for good hearing that air should circulate unobstructedly through the Eustachian tubes as it is necessary that air should pass unobstructed into the lungs for good breathing. It is too often the case that we see young adults with more or less impairment of hearing, as the result of a previously long-continued mechanical irritation in the throat and post-nasal region from enlarged tonsils, even though the enlargement at this period—the adult period—may have entirely disappeared. Proper attention to the tonsils at the proper time in childhood, would have preserved the hearing and relieved the child of a great annoyance.

The causes of this disease are numerous, but in children, when not congenital or hereditary, it is the result of frequent catarrhal sore throat. The prognosis of all these cases is favorable if the proper treatment is instituted in time.

The treatment is very simple, but very radical. Only one thing is of any service, and that is excision of the tonsils. In my hands all other treatment has been not only of temporary benefit, but a great trouble and annoyance both to the child and the parents.

I read a pamphlet by a Frenchman some years ago, who advanced the original idea that removal of the tonsils "unmanned the patient, and that all the powers of procreation were lost." He failed to say what effect it would have upon the females. I mention this statement as a mere curiosity, for there is not the slightest evidence to corroborate the assertion.

The hemorrhage that follows the operation is not great, usually stopping of its own accord in five minutes, but if it should not, it is easily checked by means of gargling salt water, or, if necessary, a few drops of muriate tinc. of iron in water may be gargled. Out of several hundred operations I have seen but one case of serious hemorrhage, and that was secondary.

The after treatment consists of salt water gargle, fluid diet and good care for three or four days; the parts soon heal. It is well for every operator to become ambidexter, as by that means he can save a great deal of trouble.

Don't hesitate to remove tonsils when they are very much enlarged, and are a mechanical obstruction, and don't have any fears of "unmanning" your patient.

Treatment of Hiccough by Compression of the Phrenic and Pneumogastric Nerves.

When we examine the different methods of treatment of hiccough called *idiopathic*, one is surprised to find scarcely anything else advocated than a number of remedies popular as well as empiric, such as strong compression of the wrist, and sudden fright, swallowing a large quantity of cold or acidulated water, compression of the chest or pit of the stomach, etc. It is rather odd that, in the treatment of this spasm of the diaphragm, a therapeutic action upon the nerves which preside over its function or influence it in a reflex manner has been so little sought after—we refer to the phrenic and pneumogastric nerves. It is true that the malady being as a rule benign, the above treatment has usually sufficed. However, T. Schortt, Duchenne, Bouchut, and Tripier, each advocate a method in which they had had in view an action on the nerves which appeared to them to be involved. The first three wished to act on the phrenic, A. Tripier on the pneumogastric. The Scotch physician, Thomas Schortt, successfully applied a blister over the phrenic nerve; Bouchut extols the hypodermic injections of morphia in the course of this nerve. Duchenne uses galvanism of the phrenic; the continued current is used by A. Tripier, who advises its application, "the positive pole to the epigastrium, the negative to the front of the neck, in the line of the pneumogastric."

It will be noticed that, whatever the theoretic idea may be that has influenced the choice of one or the other of these nerves, the therapeutic application always involves both. The reason for this is the anatomy of the parts. After referring to the anatomical relations of the two nerves in the neck and to the diffusible nature of electricity applied to the surface, the writer goes on to say: But in a malady usually so mild, and which as a rule lasts but a few minutes or hours, when it is not symptomatic of a serious disease, such as peritonitis, intestinal obstruction by internal strangulation, etc., such a condition, I repeat, where hiccough is styled *idiopathic*, the treatment employed ought to be as simple and easy as possible. It is true that if one can consider as simple the use of electricity, blisters and hypodermics, one ought to observe that they have been only resorted to where empirical means have failed. We must find, then, a means at once easy of application and effective; such is the treatment of hiccough by digital compression.

It requires no instrument; it is readily applied even by the patient. We have seen just now that four or five centimetres of the inferior clavicular portion of the sternocleidomastoid muscle lie directly over the two nerves. This is the part we select, guided by the pulsations of the carotid. The thumb and index finger are used on either side symmetrically, applying pressure sufficiently strong to cause the spasm to disappear. One or two minutes as a rule, sometimes less, are sufficient; meanwhile the patient's head must be kept immovable. In our method, as in those that we have cited, the therapeutic action affects equally both nerves.

It follows that if the hiccough arises from the stomach, the pressure which effaces or diminishes the reflex action of the pneumogastric will stop the spasm during the time it is reflexly excited and often even afterward. If, on the other hand, the cause arises directly from the influence of the phrenic, the calmative action of compression is equally manifested. Whatever may be the pathogeny of hiccough and the therapeutic mode of action of the digital compression, the result is nevertheless remarkable. We have rarely seen this method fail in idiopathic hiccough. Once, however, in a young hysterical girl, who had suffered from hiccough for two days, compression, far from calming the spasms, each time it was applied, rendered them on the contrary more frequent. In hiccough symptomatic of a severe general disease we have never successfully used compression. We would in no wise discourage experiments in this line, having only used this method five years.—*Dr. Grognot in Bulletin General de Therapeutics, R. Z.*

Placenta Previa.

E. G. EDWARDS, M. D., OF LONDON, CANADA.

UNAVOIDABLE hemorrhage is admitted, I believe, by all to be due to the attachment of the placenta over part, or all, of the os uteri, partial detachment of the same causing the hemorrhage.

Accidental hemorrhage, on the other hand, occurs from placental detachment of a normally situated placenta. Dr. Edwards then gives the histories of seven cases and concludes his paper as follows:—

Judging from my own experience, coupled with what I have read and heard respecting the treatment of placenta previa, my own views are the following: That after one severe flooding the sooner you deliver the better, more especially if they are labor pains. In five out of six cases there were more floodings than one. I recommend, when head presents, to separate the placenta from os uteri all around as far as you can reach, if labor has commenced. Then, if possible, detach the placenta on one side completely, so as to allow you to reach the membranes and rupture, to give ergot by the mouth or ergotine by hypodermic injections, and use a little pressure over uterus externally. In most cases, as the water discharges, the head descends, thereby plugging, by pressure on the placenta, so thoroughly as to check the hemorrhage. I am in the habit of emptying the bladder by a catheter and having forceps on hand, and a roller bandage around the abdomen in order to give external support if required, and holding a plug against the os with my hand if the flooding is severe. I had no occasion to use forceps in any case of placenta previa so far.

Respecting turning, I should, in cross birth, carefully try to turn by manipulation by finger in the vagina and external assistance.

My advice is never to introduce the hand through the placenta and thereby gain entrance into the uterus for the purpose of turning, for thereby violence is sure to follow. In fact I am not an advocate for turning by introducing my hand into the uterus under any circumstances, unless all other means fail: as I consider that procedure very injurious to the mother and very apt to be followed by shock or by inflammatory action of some kind. Possibly in some cases no other mode is practicable, and it must then be had recourse to. Respecting plugging, I have always succeeded in arresting hemorrhage by this means, giving thereby safety and time. It likewise stimulates the uterus, and the os is found more dilated. I would not give ergot unless I knew the bladder was empty, the parts proportionable, the os dilatable, and instruments at hand. Flooding nearly always relaxes the os. My rule in giving ergot is first to make sure of head, feet or breech presentation, with some pain, and in cases in which I have decided to deliver at once. Ergot would only increase the mischief in placenta previa, unless it was given to assist your efforts at the time of expulsion of the child.

Respecting hot drinks, I am aware that cool or cold drinks are generally recommended in cases of flooding. I do not, however, believe in giving cold drinks in shock or great depression. Opium, in small doses, as a stimulant, I hold very valuable in floodings, and large doses in the cases requiring the plug, to give rest and sleep when time for rallying is necessary.

I once dreaded placenta previa cases as amongst the most dangerous in midwifery; I now look upon them as being very manageable, unless there should be an excessive loss of blood before we see the patient, and even then, in most cases, we can stop the pains by larger doses of opium, plug, then wait until the patient rallies, then deliver.

I am, as before stated, of the opinion, if there has been great loss of blood, that the sooner you deliver the better, provided the hemorrhage continues, and there is pain, and the patient not too weak; but you should not introduce the hand into the uterus if you can possibly avoid doing so, always giving an anæsthetic when you do. I put emphasis on this latter—anæsthetic (ether or chloroform). My practice and advice is, in all severe midwifery operations, to give one or the other. My reasons for thus advising are: (1) It is humane and prevents unnecessary suffering. (2) By its use depression and shock are lessened, if not prevented altogether.

Allow me here to say that I, at any rate, have not, neither do I intend adhering to the old traditional theories and procedures respecting the use of anæsthetics in midwifery.

In conclusion, following up turning in cases of placenta previa, the only argument I can conceive justifying it when the head presents, is the speedy delivery of the child in order to save its life. But how often will we be disappointed in this, as it is well known where some floodings have taken place the child is usually born dead. To compensate for that, by plugging and waiting, the shock of introducing the hand into the uterus will be avoided and the maternal parts not injured. I believe the time is not far distant when turning, by introducing the hand into the uterus, will be the exception, not the rule as at present.

I have adopted a procedure of my own, viz., when called to a case of placenta previa near the end of pregnancy, when flooding is in progress, with the pains continuing, and the patient not too weak or exhausted, to separate as much of the placenta as I can on one side, detaching a portion of it completely from one side, bringing it down into the vagina; and if the os is not well dilated, and the pain continuing, to squeeze the detached portion between my fingers, or to press it firmly against the opposite side until the os dilates; then I give ergot and rupture the membranes, still pressing the detached portion of the placenta until the head descends sufficiently to check the hemorrhage.—*Canadian Practitioner, September,* 1885.

Malarial Fever.

BY WILLIS CUMMINGS, M.D., NEW CANAAN, CONN.

I SEND the following treatment for malarial disorders, after having used it in over three hundred cases, living in this town, the surrounding country, in Western, Northern and Eastern cities and New York. My reason for giving it is not so much for its originality as for its wide application in malarial poisoning. I have used it in all the different varieties, such as the neuralgic, rheumatic, etc., with almost uniform success, and therefore, as it has been good in my hands, I give it with the hope that it will do as much in the hands of others.

At the suggestion of Dr. John Messenger, of New York City, while in college, I tried it in my own case, with the most gratifying results, as I never had a chill afterward until I came to this town, when the same course gave the same termination, and I have had no more since.

From 40 to 60 grains of potass. brom. are put in about half a glass of water, and at the first symptom of gaping, stretching, occipital or frontal headache, or other sign of an approaching chill, it is taken in three doses, ten to fifteen minutes apart. Immediately after, a capsule containing 5 grains of dextro-quinine, and 1 grain of capsicum is taken, followed in four or six hours by another, and so on until six or eight are taken. This seems to be a permanent stop to the chills.

The above was the original method which gave satisfactory results, but after numerous trials I settled upon the following mixture for the capsules, finding that my results were and are almost always good.

℞.	Quin. Sulph.,		gr. xii-xviii.
	P. Capsicum,		
	P. Zingeberis,	aa	gr. iv.
	P. Ex. Nux. Vom.,		gr. ii.
	P. Ex. Xanthoxylum, (Keith's)		gr. ix.

M. et. ft. capsulæ No. ix.—One every five hours.

A typical case of the tertian variety is treated as follows: Paying no attention to the bowels, the bromide solution is kept on hand and at the appointed time is taken, followed by a capsule containing the last formula, varied slightly to suit different phases of stomach, head or neurotic symptoms. The result is usually an absence of the prodromal symptoms up to the time of the fever, which usually makes its appearance in a much less degree. On the next regular day there is an entire absence of all the symptoms, which continues indefinitely, some cases gaining weight and appetite at once. I have found that cathartics given before treatment are detrimental to a thorough action of the formula.

In the irregular forms, or the quartan variety, I order three or four capsules a day until twelve or fifteen are taken, each containing not more than one grain and a half of quinine. This treatment is not applicable to children of tender age, and I use for them, especially those under one year, the following, with excellent results:

℞. Fl. Ex. Jaborandi, . . . ʒ i.
Fl. Ex. Cimicifuga Race., . .
Fl. Ex. Eucalyptus Glob. aa ʒ ii.

M. Dose gtt xx to ʒ i. in aqua ℥ viii—a teaspoonful once in two hours according to indications.

It would lengthen this article too much to give my opinion as to the action of these formulæ, but I think that every one will see the *modus operandi*, and I think I can say, not boastingly, that during a four years' practice in a malarious section, I have had reason to use arsenic, iodine, calomel, or any other method, but few times—not more than a half-dozen. Cases of from two to fifteen years' standing, who have relied altogether on large doses of quinine, have according to their own statement received permanent relief. I may not be believed when I say that I have not used five grains of quinine in one dose for any case of intermittent in three years: but such is the fact, and while I have no antipathy against the quinine, I think that using it so little in the disease that it has hitherto been mostly used in, is worthy of mention.

My strong commendation of a formula which is not entirely new or original, may seem uncalled for; but when I observe older men who insist that large doses of quinia are the *only* doses that will cure, I feel for the good of those whose eyes are open to anything that will benefit our patients, even if it is out of the beaten track, that my experience may be of some use.—*New England Medical Monthly.*

Iodoform Poisoning After Operations on the Vagina.

PROF. HARNACK and Dr. E. Schwarz, of Halle, record in the *Berliner Klinische Wochenschrift* (Medical Chronicle) four cases in which serious, and in two cases fatal, symptoms appeared during the use of iodoform as a dressing after operations on the vagina. In no case was the quantity used large, but each patient had been the subject of psychical disturbances prior to the performance of the operations.

The symptoms all pointed to irritation of the higher cerebral centres, convulsions being present in all cases, and in the fatal ones violent mania was the most prominent symptom. The symptoms appeared on the second or third day after operation, and seem to have come on quite suddenly. In the two fatal cases the irritation symptoms gave place to collapse, in which the patient died; one five days after operation, the other on the third day.

Prof. Harnack made careful analysis of the urine in two of the cases reported, and from the result of these analyses, and of others made by Dr. Gründler, he states that when iodoform was used as a dressing and no symptoms of poisoning occurred, the iodine was excreted by the kidneys as an iodide, whereas in the cases in which there were symptoms of poisoning, the greater part of the iodine excreted was found combined with organic substance, which was probably the result of the decomposition of an iodine—albumin compound.

The results of the analysis of the urine and organs of one of the fatal cases are given below: On the first day after the appearance of cerebral symptoms the total amount of iodine was 0.5277 grm. per litre of urine (= 0.6906 grm. KI), four-fifths of this iodine being in organic compounds. On the second day, all iodoform having been removed from the wound in the vagina, no iodides were detected in the urine; but the organic residue contained iodine compounds equivalent to 0.1035 of iodine per litre of urine.

In the ashes of the liver substance no iodine was found. In those of the cerebrum, a trace of iodine was present, but there was not enough to weigh. In the dried substance of the cerebellum 0.0203 per cent. of iodine was found.

Prof. Harnack remarks on the large proportion of iodine found in the brain, and thinks that this will account for the preponderance of cerebral symptoms in these cases.

In the second case, which was not fatal, analysis of the urine showed 0.2318 grm. of iodine per litre, three-fourths of which was present as iodides; the total amount of iodine in the urine being much greater than in the fatal case, whilst the relative amount of iodide is four times as great, thus supporting Prof. Harnack's hypothesis as stated above.

The practical outcome of these papers is as follows:

Iodoform must be used very sparingly as an antiseptic for wounded surfaces. The authors recommended that free iodoform be not used, but that iodoform gauze should take its place. Great care should be exercised if iodoform is used for patients who have previously suffered from mental disturbances.

On the first appearance of any cerebral disturbance after the use of the drug, the wound must be well cleaned and washed with alkaline lotions, and large doses of acetate of potash given by the mouth; and, in the most serious cases, transfusion of alkaline solutions into the veins is recommended as worthy of a trial, so as to assist the excretion of iodine from the blood, or to convert it into harmless iodides.

American Gynecological Society.

Tenth Annual Meeting held at Washington, September 22, 23 and 24, 1885.

THE President, Dr. Wm. A. Howard, of Baltimore, read the annual address. It was entitled

TWO RARE CASES IN ABDOMINAL SURGERY.

He held that all cases, whether successful or not, should be put on record, in order that the knowledge of such affections might be increased. The paper described two rare cases of exceptional interest, in which the doctor was completely baffled in the diagnosis, and declined to make one.

Case I.—S. H., negress, aged 24 years, married, presented herself at the Dispensary of the University of Maryland, April 20, 1882. She was seen by the clinical assistant and the following notes made: Menstruation appeared at the age of fourteen, and had been regular and normal. She was the mother of five children, the youngest of whom was two months old. She had never had a miscarriage. Some days after delivery she noticed an enlargement in the lower portion of the abdomen, which gradually extended in the middle line until it reached the umbilicus, and was attended with bearing-down pains and frequent micturition. On examination, fluctuation was well marked all over the abdomen, with decided resonance about the umbilicus. There was dullness on percussion and bulging in both flanks. Six weeks later she returned to the Dispensary, and at this time the resonance at the umbilicus had disappeared and the umbilicus projected. I saw her for the first time two weeks after this observation was made. At this time she was quite sick, the temperature being 102° F., the pulse 132, and the respiration 32 per minute. Examination showed the presence of fluid in the pleural sac. There were also some crackling rales heard through the lung. The abdomen was as large as at seven months' pregnancy, and was remarkably protuberant in the center. There was complete dullness over the entire abdomen, not changed by change of position. There was no evidence of a solid tumor, but it had every appearance of a simple unilocular cyst. Vaginal examination showed the uterus well in front of the tumor, and the sound gave a measurement of two and three-fourths inches.

The question which arose was as to the nature of this tumor. Was it ovarian? The extreme frequency of ovarian tumors in the negro race was against this view. The rapid growth of the tumor was also opposed to this view. The next affection considered was fibro-cystic tumor of the uterus; this is exceedingly rare. The speaker had seen but one such case in the negro. In that case the cyst was filled with pus. The patient was operated upon, with a fatal result. Such tumors are rare before the age of thirty-six. They usually develop slowly. There was no menstrual disturbance in this case. For these reasons fibro-cystic tumor was excluded.

Was it a parovarian cyst? These usually develop even more slowly than ovarian cysts. They are usually flaccid. They contain a thin liquid, are comparatively rare, and do not affect the general health. This was therefore excluded.

It was certainly not a case of simple ascites, but was it a case of encysted dropsy, so called, of the peritoneum resulting from simple peritonitis? This is an extremely rare affection, and in early stages there are symptoms of constitutional disturbance, the abdomen is not prominent, and often it is flaccid. Encysted dropsy was excluded.

Finally, on June 20, I aspirated the cyst under antiseptic precautions. The fluid which escaped was of a light straw color, and coagulated as speedily as blood. After asperation, large masses were readily felt through the abdominal wall. The character of the fluid corresponded with that which is said to characterize fibro-cystic tumors of the uterus. The speaker had, however, seen other cases which showed that the character of the fluid was not pathognomonic. In one case of abdominal tumor, fluid was removed which did not coagulate even after being kept for many days. The abdomen was subsequently opened and a fibro-cystic tumor found. In a case of supposed ascites in a man, aspiration s performed, and the fluid removed coagulated quite idly.

After the cyst was aspirated, the patient did well for three days, when acute peritonitis supervened, and the patient died on the seventh day.

At the autopsy a mass as large as a child's head was found in the abdomen. This consisted of omentum, the transverse colon, and small intestine bound together by inflammatory exudation. The inflamed peritoneum was invaded everywhere with miliary tubercles; there was no ovarian or uterine disease. There was some tubercular ulceration of the small intestine; the other abdominal organs were not affected. The pleura was also invaded with scattered miliary tubercles. In both lungs there were some tubercles.

This, then, was a case of encysted tubercular peritonitis simulating ovarian or parovarian cyst. The failure to recognize the true condition was ascribed to want of attention to the previous history of the case and the recognition of the fact that there had been free fluid in the peritoneal cavity at the first visit.

He then referred to the few similar cases which had been reported. In these cases the disease had appeared, as a rule, under the age of twenty-five years. It has progressed rapidly, the length of time varying from six weeks to eight months.

Case II.—F. R., aged 24, was admitted to the hospital in July, 1883. She claimed to belong to the colored race, but looked much like a white woman. She had been married one year, but had never been pregnant. There was no evidence of uterine disease. The abdomen was much enlarged, measuring forty-seven inches just below the umbilicus. Vaginal examination showed the uterus pushed forward by a sac containing fluid. There was, apparently, an immense unilocular sac. This had been first noticed seven or eight years before. The increase in size had been gradual, and unaccompanied with pain.

As to diagnosis, ascites was dismissed both by the physical signs and the absence of any cause to account for such a condition. The length of time which the affection had lasted was against its ovarian origin. There are, however, exceptional cases in which an ovarian tumor may be present for a number of years, even as many as twenty-four, without requiring operation. The age of the patient, the length of time which the cyst had been present, the marked fluctuation, and the flaccid nature of the tumor, were in favor of a parovarian cyst. There was one point against this diagnosis, and that was that, although the cyst was flaccid, it could not be compressed below the umbilicus. Fibro-cystic tumor was readily excluded. The history of the case was against the existence of encysted peritonitis. The balance of evidence seemed to be in favor of an ovarian or parovarian cyst.

On July 13th the operation was performed. It was made largely with the view of exploration. The peritoneum was found much thickened, and closely adherent to the sac. With difficulty the adhesions were separated for a short distance, and the cyst presented the appearance of an ovarian cyst. A trocar was introduced, and forty pounds of a greenish, viscid fluid removed. An endeavor was made to enucleate the cyst, but the adhesions were so extensive that this could not be accomplished. The cyst was then incised to the extent of the abdominal opening, and on looking into it, it appeared to occupy the whole abdominal cavity, stretching tightly over the spinal column. A small portion of the wall of the cyst was removed, a drainage tube introduced, and the opening closed with stitches. Peritonitis ensued and the patient died. A post-mortem was made, but owing to the physician's unavoidable absence, was not sufficiently full to throw any more light upon the case than had been obtained at the operation. The nature of the cyst, therefore, remained unsettled.

Dr. Emmet, of New York, said a few words in regard to the difficulties of the diagnosis. It seemed to him that the older he gets, and the more experience he has, he more uncertain he is about diagnosis. While in yesterday's discussion he did not favor opening the abdomen, yet, when a woman has an abdominal tumor, he favors opening the abdomen to make the diagnosis, because she has something which must come out. As regards rapidity of development, we can not depend on that. He has seen parovarian cysts develop in six weeks, and recover after operation. He has also seen cases which had lasted twenty-three years. He has twice opened the abdomen expecting to find an ovarian cyst, and found a fibro-cyst. About two years ago he saw a case in which he could not make a diagnosis. The abdomen was opened, and he saw just such a cavity as had been described. It seemed as if a cyst had at some time ruptured, and its contents had become encysted. The cavity was left open, frequently washing it out. In six weeks the cavity had greatly diminished. Unfortunately, the patient died at this time from strangulation of the small intestine. There is no set of symptoms which we can say belong exclusively to a certain condition.

Dr. William Goodell, of Philadelphia, said that the President seemed to have been somewhat ashamed that he did not make the diagnosis in the first case. He could tell him that he has removed tumors the nature of which he does not know to this day. In one case he worked for forty-five minutes before he found out what the tumor was. It turned out to be two ovarian tumors which had coalesced, including the uterus between them. He felt more and more the necessity of performing the exploratory operation. For it is impossible to make a correct diagnosis in many of these cases. To illustrate the difficulties of diagnosis, he reported a case which he saw some time ago. A lady presented herself with a solid tumor of the abdomen. There were also metrorrhagia and menorrhagia. He diagnosticated a fibroid tumor of the uterus, but the growth was so mobile as to suggest the possibility of a fibroid tumor of the ovary, and he so noted it in his record book. He advised against an operation. The lady went North, and her suffering became so great that she consulted a distinguished gynecologist, desiring an operation. He wrote to him, asking his diagnosis. He told him what he thought of the case. He performed the operation, removing a large fibroid of the ovary, there being no adhesions.

Dr. T. A. Reamy wished to put on record another case in which a fatal result followed aspiration in tubercular peritonitis. The patient was a man, but the tumor presented all the characteristics of an ovarian cyst. The patient died the second day after the removal of the fluid.

There is great difficulty in the diagnosis of these abdominal tumors. In reference to the coagulability of fluid from other sources than fibro-cystic tumors of the uterus, he wished to say a word. In a case which he saw some years ago, he tapped a woman and obtained a large quantity of pure blood. This coagulated at once. The patient recovered, and is still living. His inference is that this was a case of tumor of the omentum.

Dr. Howard said, in closing the discussion, that it is agreed by all that cases often occur in which the diagnosis can not be accurately determined, but in the majority of cases he thinks a correct diagnosis is made. The fact that he was able in these cases to eliminate so many of the ordinary conditions which give rise to these tumors, shows that we have the means of making the diagnosis. The object of the paper was to give an accurate account of this case, in in order that it might assist others in cases of obscure abdominal tumors.

Thaddeus A. Reamy, of Cincinnati, then read a paper on

THE CARE OF THE PERINEUM DURING LABOR.

He referred to the various opinions which had been expressed on this subject. There is a general agreement as to the importance of preserving the perineum. In certain cases, however, from anatomical and pathological conditions, laceration is almost inevitable. He spoke of the various methods which had been proposed, dividing them into two general classes, those which aimed to support the perineum and those which were used with the object of retarding the progress of the head. There is one class, numerically small, who believe that the perineum should be let alone. The method about to be described he had adopted several years ago, and it had given him much satisfaction. He was persuaded that he had saved many perinea through its use. It was recommended for primiparæ and others where the structures were greatly imperiled. During the early part of the second stage the patient is allowed to assume any position she prefers, but when the head begins to distend the perineum, the patient is placed across the bed with the limbs in the lithotomy position, with the exception that the knees are kept close together. This is important. The limbs are held in this position by two assistants. A piece of muslin or a towel, ten inches wide and forty or fifty inches long, is carried around the buttocks of the patient and over the hemisphere produced by the bulging perineum with the upper edge on a level with the fourchette, and the ends given to the assistants. They are instructed to make traction, during the pain, in the manner that the accoucheur may direct. The bandage must be applied smoothly. The direction of the force may be made in any required direction. Care must, however, be taken that the pressure is equably distributed, and that the assistants do not simply pull on the middle or posterior part of the bandage, while the anterior portion is left lax.

In order to show that this procedure is based on good anatomical grounds, the speaker next referred to the anatomy of the perineum, illustrating his remarks with diagrams.

According to the old descriptions of the anatomy of this region, it was considered that the muscular fibres decussarted in the part between the vagina and rectum. Recent observations show that this is not the case, but that the fibres simply meet, and a laceration of the perineum divides no muscular fibres transversely, with the exception of those of the transverse perinei. The fibres are simply separated. When the sphincter ani is divided, its fibres are, of course, divided transversely. The perineum is prevented from lacerating by the protection afforded by the tissue below and the integument. The bandage used in the way described affords a supplementary perineum, as it were. By keeping the limbs in the position indicated, nature is able to supply tissue for the relaxation of the perineum. When the perineum is bulged the lateral and posterior sulci disappear, and the perineum with the advancing head forms almost a hemisphere. The towel is in contact with every part of this hemisphere. The advance of the head may be retarded by making traction on the towel. Where it is accessible, a narrow bed may be used with advantage, the assistants taking their positions near the head of the patient.

The use of this bandage avoids any tendency to exciting expulsive efforts from reflex irritation of the perineum, as is sometimes seen where the fingers are used. It is comfortable to the patient, and may be kept on until the shoulders are delivered. In order to be successful there should be the most painstaking care in every particular.

Microscopy.

STRUCTURE OF MUSCLE.—Schäfer, in his Histology, gives the following directions for preparing muscular fibre for microscopical examination: "Take a shred of muscle from a recently killed mammal, and on a dry slide carefully separate long pieces of muscular fibre (single fibres if possible), and stretch them out, keeping them moist during the process by breathing on the slide. Put a drop of serum on the coverglass before placing this over the preparation. Study first with a low, then with a high power. Sketch all the appearances to be seen in a small piece of a fibre, focussing carefully the most superficial layers. Notice the oval nuclei immediately under the sarcolemma. Then allow a little dilute acetic acid to run under the coverglass and watch its effects.

2. Prepare some fibres of frog's muscle in the same way, but mount in salt solution instead of serum. Notice the muscular substance shrinking away here and there from the sarcolemma, which then become distinctly visible. Sketch a piece of sarcolemma bridging across an interval thus produced.

To prepare muscular fibre merely for the purpose of exhibiting the striæ, and not having in view the preservation of the specimens, we (the Ed.), have found a very convenient and rapid method to be to take a piece of cooked meat, fresh or cured, as ham, and chew it until it is a pulp, and then spread some of the fibres of this pulp upon a glass slide by means of a couple of needles, covering with a glass cover. With a half-inch or a four-tenths glass, many muscular fibres will be seen exhibiting the transverse striæ very satisfactorily. Of course the specimens will not have the beautiful appearance as those which have been prepared by an expert and mounted in balsam for preservation. We have a number of the latter twelve years old.

In another lesson Mr. Schäfer says: Place in logwood a small shred of mammalian muscular tissue which has been stretched upon a cork and hardened in alcohol. When it is deeply stained, wash it in water and with needles break the fibres up in Farrant's solution into as fine fibrils as possible. Cover, and examine with a high power.

2. Tear off a small shred of the muscular coat of a piece of intestine which has been from 24 to 48 hours in (⅛ per cent.) bichromate of potash solution. Hold the shreds with forceps in a drop of water and fray it out with a needle. In this process many cells will be set free and can be seen with a low power. The preparation may be covered and examined with a high power. Sketch one of the cells. Then allow dilute logwood to pass under the coverglass and lastly a drop of glycerine.

In this last preparation Schäfer exhibits the method of preparing to show the fibres of involuntary muscles which are not striated; the previous preparations will exhibit the fibres of voluntary muscles which are striated.

Epithelium.—Mount a drop of saliva and examine first with a low, afterward with a high power. Observe the nucleated epithelium cells, some single, and others still adhering together by overlapping edges. Measure three or four, and also their nuclei. Sketch one or two on the flat and one edgeways. Notice the salivary corpuscles, which are like white blood-corpuscles swollen out by inhibition of water.

We will say, in addition to Schäfer's instructions, that, if the tongue and inside of the cheeks be scraped with the blade of a knife, or like instrument, previous to placing the drop of saliva upon the tongue, the number of epithelial cells will be greatly increased.

BLOOD.—We have not the space to copy Schäfer's different methods of preparing the blood for examination by the microscope. For merely exhibiting the corpuscles his method does not differ materially from that of most other microscopists. Instead of giving any of his modes, we will describe our *off-hand* plan when we show the corpuscles to spectators, and then immediately after clean the slide. Tie a cord around a finger and prick it with the point of a sharp bistoury. Then take a couple of drops of water from a two-ounce vial filled, having dissolved in it a *pinch* of common salt, and place the drops at the end of the slide; to these drops of water add a small drop of blood from the point of the bistoury, and mix. Touch the mixture slightly with a camel's-hair brush, and draw the brush rapidly across the center of the slide. Place the slide under a quarter-inch glass, and there will be seen many very good specimens of red and white corpuscles. Not a few of the cells, however, will be found drawn out of shape by the action of the brush.

AMŒBOID MOVEMENTS.—Make, says Schäfer, a preparation of blood from the finger in the usual way. Draw a brush just moistened with oil around the edge of the cover-glass to check evaporation. Place the preparation upon a warm stage, and heat this to about the temperature of the body. Bring a white corpuscle under observation with a high power, and watch the changes of shape it undergoes. To become convinced of these alterations in form, make a series of outline sketches of the same corpuscle at intervals of a minute.

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DILUTE SULPHURIC ACID.—In some skin diseases, such as lichen, prurigo, chronic nettle-rash, few remedies are so successful in relieving the distressing itching, formication, and tingling of the skin. It is applied locally and given internally in ten-minim doses. The mouth should be rinsed with a weak alkaline wash after each dose.

Book Notices

A System of Obstetric Medicine and Surgery, Theoretical and Clinical. For the Student and Practitioner. By Robert Barnes, M.D., Obstetric Physician to St. George's Hospital, Consulting Physician to the Chelsea Hospital for Women, etc., and Fancourt Barnes, M.D., Physician to the Royal Maternity Charity and to the British Lying-in Hospital, etc. Illustrated with 231 Wood-cuts. 8vo. Pp. 884. Philadelphia: Lea Brothers & Co. Cincinnati: R. Clarke & Co. Price, $6.00.

The authors of this work very correctly state that to write a fairly complete systematic treatise on any branch of medicine demands from the writer a very wide experience of his own, a large acquaintaince with the works of others, considerable industry, and a critical faculty that will enable him to draw sound conclusions and precepts from his survey of the subject.

The authors stand in the relation of father and son. The senior author, as is known, is the author of a work entitled: "Obstetric Operations." Both gentlemen, from the positions they occupy, must have had a very large experience in the treatment of diseases of women and in obstetric practice. Under the circumstances, a work which is the product of their joint labor would be expected to be one of more than ordinary merit. We are informed that the history of gestation, of puerpery, of the mechanism of labor and of hemorrhage, which are so well elucidated in the volume, were contributed by the senior author, Dr. Robert Barnes, while much of that which relates to the prophylaxis of puerperal diseases, and to the description of the operations, is contributed by the junior editor, Dr. Fancourt Barnes. Prof. Milnes Marshall, a master of the subject, contributed the department upon Embryology, making the investigations in his physiological laboratory necessary to explain the subject. So, again, Mr. Noble Smith has contributed the greater part of that which relates to malformations and diseases of the embryo.

We are aware that the works upon Obstetrics, which are before the profession, are numerous, and many of them of great value; but by the encouragement of new productions, investigation is stimulated and advancement is made in the art.

An examination of the work will convince one that it is an especially valuable one. Beginning *ab ovo* in embryology, all the various stages of gestation are very clearly set forth, as they have been demonstrated by the most recent investigations. Then "the fullness of time" having elapsed, the student, in the meantime, having been taught the anatomical structure of the pelvis and of the female organs of generation, the signs of labor are explained, its mechanism shown, and all the phenomena belonging to natural labor exhibited. Everything that has been learned by experience and observation in regard to natural labor is noted, and far more advance has been made in this department of obstetrics than many would suppose. But far more is developed in the way of progress that will be interesting to the practitioner is found in the chapters upon Abnormal Gestation, Diseases of Gestation, Abortion, The Puerperal Process, Accidents During and Following upon Labor, etc.

We have not the space to make extracts from the volume before us, in order to exhibit the authors' views upon different topics pertaining to the obstetric art. We must limit ourself to the statement that the work forms a complete manual of obstetric medicine and surgery, in which are set forth all newly accepted views, mirroring, as it were, this branch of medicine as it is held and practiced at the present time. In no respect, however, can it be regarded a compilation, the authors and contributors to it having investigated every subject themselves.

INEBRISM; PATHOLOGICAL AND PSYCHOLOGICAL STUDY. By T. L. Wright, M. D., Member of American Association for the Cure of Inebriates. 12mo. Pp. 222. Columbus, O.: William G. Hubbard.

As the author states, while the minister of religion considers drunkenness a sin to be repented of, and the lawyer a crime to be punished by the penalties of the law, the physician looks upon it (chronic inebriety) as the result of a pathological state. The more the subject is investigated, the more certainly is it impressed upon the mind that chronic drunkenness is a disease for which the subject is not responsible. Even where there is not a hereditary taint, the long-continued use of alcoholic beverages, to the extent of becoming frequently intoxicated, will bring about such structural changes in the brain that a morbid incontrollable appetite will be established—an appetite that will be indulged in spite of the will.

The work of Dr. Wright will be found highly interesting, treating, as it does, upon a subject that is attracting more and more attention on the part of every intelligent person who cares for the welfare of his race. Drunkenness has reached a point that it is almost threatening the destruction of the race. So prevalent has it become that there is scarcely a family that does not suffer to a greater or less extent from its effects; and Mr. Maudsley has demonstrated very clearly that the deterioration which results from it is followed, in the course of a generation or so, by extinction.

The small work before us demonstrates in a very clear manner the physiological and pathological effects of alcohol upon the system. It is a scientific treatise upon the action of alcohol, and is not designed at all as a temperance tract. Dr. Wright has given much attention to diseases of the nervous system, and is well qualified to treat concerning them or upon any subject pertaining to mental phenomena. He has written not only for the MEDICAL NEWS, but also largely for the various journals devoted to diseases of the nervous system and to insanity.

MILK ANALYSIS AND INFANT FEEDING. A Practical Treatise on the examination of Human and Cows' Milk, Cream, Condensed Milk, etc., and Directions as to the Diet of Young Infants. By Arthur V. Meigs, M.D., Physician to the Pennsylvania Hospital and to the Children's Hospital, etc. 8vo. Pp. 102. Philadelphia: P Blakiston, Son & Co. Cincinnati: R. Clarke & Co. Price, $1.00.

This is quite a small book, but is, nevertheless, a very valuable one; and we know that we can not be charged with indorsing it too highly when we say that every physician should have a copy of it. What subject can possibly be of more importance to a physician, in the practice of medicine, than that of milk? It is certainly of vital importance to the welfare of the infantile portion of the community; and the treatment of infant diseases forms no small part of a medical man's business. But milk has a wider range than alone constituting the food of the human being during the first period of his existence, as a little reflection will make evident.

Dr. Meigs, in this little work, gives very full and clear directions for analyzing milk—human and cows' milk, etc.—which will be very valuable to the every-day physician ; for the methods of such analyses can usually only be found in large and expensive works upon organic chemistry, and these are of a kind only available to the professional chemist. Besides this there is much interesting matter on the nutritive properties of milk generally ; on the differences in the varieties of milk ; upon the feeding of infants—their artificial feeding, etc.

THE ESSENTIALS OF HISTOLOGY, DESCRIPTIVE AND PRACTICAL. FOR THE USE OF STUDENTS. By E. A. Schäfer, F. R. S., Jodrell Professor of Physiology in University College, London ; Editor of the Histological Portion of Quain's Anatomy. 8vo. Pp. 245. Philadelphia : Lea Brothers & Co.; Cincinnati : R. Clarke & Co. Price, $2.25.

Every physician and medical student having a microscope, on examining this work, would not think of doing without it, for it has been prepared by the author, who is a distinguished microscopist, with the object of supplying the student with directions for the microscopical examination of the tissues. At the same time it is intended to serve as an Elementary Text-Book of Histology, comprising all the essential facts of the science, but omitting unimportant details, the discussion of which is only calculated to confuse the learner. It is not, therefore, designed for microscopists alone, but for all who are interested in histology, or the minute structure of tissues, membranes, etc.

Beginning with the simplest organic structures, such as blood globules and other cells, the student is taught how to prepare them for the microscope, and then instructed how to view them. From the investigation of these simple bodies the student is carried along, through the various lessons, to the consideration of more and more complex organisms, until he is prepared to enter upon the study of the most intricate organs, as the structure of the spinal cord, the medulla oblongata, the eye, etc. Certainly it is a great satisfaction for one to see all the minute points which are mentioned in the histological description of an organ.

We are sure the work will be popular with all students of physiology and histology. See Microscopical Department for extracts.

FOWNES' MANUAL OF CHEMISTRY, THEORETICAL AND PRACTICAL. A New American from the Twelfth English Edition, Embodying Watts' "Physical and Inorganic Chemistry." With 168 Illustrations. 12mo. Pp. 1056. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co. Price, $3.25.

Fownes' Chemistry has been a standard text-book upon chemistry for many years. Its merits are very fully known by chemists and physicians everywhere in this country and England. As the science has advanced by the making of new discoveries, the work has been revised so as to keep it abreast of the times. While many new works upon chemistry have been published since Fownes' was first issued, not a few of them by distinguished chemists and of recognized merit, yet it has steadily maintained its position as a text-book with medical students.

In this work are treated quite fully Heat, Light and Electricity, including Magnetism. It is of the utmost importance that physicians should be acquainted with these imponderables, as chemists call them, and yet, singularly, although belonging to chemistry, they are omitted from many works upon the subject. The great influence exerted by these forces in chemical action, upon health and diseases, etc., are of the most important kind and should be familiar to every medical practitioner.

As newly revised, and having embodied in it the "Physical and Inorganic Chemistry" of Prof. Watts, a scientist of renown before his decease, we can commend the work as one of the very best text-books upon chemistry extant.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by William Pepper, M. D., LL. D., Professor of Medicine in the University of Pennsylvania. Assisted by Louis Starr, M. D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Volume III., Diseases of the Respiratory, Circulatory and Hæmatopoietic Systems. 8vo. Pp. 1032. Philadelphia: Lea Brothers & Co.

This magnificent Practice of Medicine by American authors, published by Lea Brothers & Co., has now reached in the way of publication to the third volume, which we have just received from the publishers. Our readers will see by the title-page, which we give above, to what subjects the third volume is devoted.

The present number of the MEDICAL NEWS is too nearly complete to notice the volume in it. We will give it attention in the next. The agent at Cincinnati tells us that the sale is immense.

A TEXT-BOOK OF MEDICAL CHEMISTRY FOR MEDICAL AND PHARMACEUTICAL STUDENTS AND PRACTITIONERS. By Elias H. Bartley, M.D., Adjunct Professor of Chemistry, and Lecturer on Diseases of Children in Long Island College Hospital, Chief Chemist to the Department of Health, City of Brooklyn, N. Y., etc. With Forty Illustrations. 8vo. Pp. 376. Philadelphia: P. Blakiston, Son & Co.; Cincinnati: R. Clarke & Co. Price, $2.50.

This book is designed especially as a text-book for medical students during their attendance upon lectures. The author states that it is the result of his experience as a teacher of chemistry for the past twelve years; and its plan, and much of the subject matter, are essentially that taught by him in his lectures at the Long Island College Hospital for the last six years.

The work has the merit of being as brief as possible, consistent with furnishing an intelligent description of the various topics. But while stripped of all unnecessary verbiage, the demonstrations are made so plain that the intelligent student can easily grasp them and see the points at once. It will be found to be an excellent work to have in hand to follow along with the lecturer.

There are questions interpersed here and there to assist the student in reviewing what he has gone over. The latter part of the work is devoted to organic chemistry, in which are described such organic combinations as albumen, globular, fibrin, peptones, fats, gelatine, etc.

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A TRADESMAN having bought a door-mat with the word *salve* (welcome) in the center, a country relative, on seeing the mat, remarked: "I say, Cousin John, what kind of salve is that you advertise on your door-mat?"

Editorial.

A Library Lost by a Flaw in the Will.—The New York *Medical Record*, in a recent issue, contains the following item: "Dr. Robert R. McIlvaine by his will, made on July 27, 1881, the day before his death, bequeathed his collection of books and pamphlets to the Mayor of the city of New York, and the Presidents of the New York Academy of Medicine and the College of Physicians and Surgeons, as his trustees, for the purpose of establishing and maintaining an institution to be known as the McIlvaine Library. To maintain it, he bequeathed to his trustees all the residue of his estate—estimated at about $60,000—after the payment of certain legacies. The heirs have brought suit for the purpose of breaking the will, and the Court has decided that the provisions with regard to the library were invalid."

Thus have been brought to naught, after his death, the fond wishes of a man's lifetime. For many years previous to his decease, Dr. McIlvaine frequently expressed his intention to friends to bequeath his large collection of valuable books and his fortune for the establishment of a library for the benefit of the profession after his death. The fulfillment of this desire became the ambition of his life. He came to Cincinnati many years ago, comparatively poor, but, in course of time, by economy in personal expenses, although living genteelly, and by prudent investments, he succeeded in amassing considerable wealth. He never married, and consequently had no family. He had a sister and some nieces and nephews, who constituted his relatives. But as no one seldom ever heard him mention his nieces and nephews during the many years he resided in Cincinnati, it is fair to infer that he did not feel himself closely attached to them. As his fortune was obtained exclusively by his own exertions, he was under no obligations to any one, so far as it was concerned.

We do not wish to reflect upon Dr. McIlvaine's relatives, for we presume, from our experience with the world, that, in breaking his will, seizing upon his property, and rendering void his purposes, they have not done any differently than the majority of persons would have done. But really it seems a pity that the fondest hopes of a man should be blighted—that for which he has labored for the largest and best part of his life, denying himself of many enjoyments that he probably otherwise would have indulged in, should finally not be realized, although before departing from life he had reason to believe that everything had been made ready for their complete consummation. But a "flaw in the will" resulting, may be, from the incompetency of an attorney, and the purposes of a life, however noble and honorable, the fondest hopes of years, with all their attendant dreams, which fancy loved to dwell upon, of doing something which would perpetuate one's memory, by the good that would follow upon it long after one has entered upon the sleep that continues forever, are dashed to pieces.

We heartily assent to the legal enactments in force in Ohio, which will not permit a husband by will to cut off a wife without a cent—that give her a claim to one-third of his estate; nor do we believe that, morally, a man has a right to disinherit his children, especially if they should be needy; but, after providing for these, his obligations cease. That an individual's nephews, nieces, uncles and aunts have a claim upon him, is preposterous. It seems very strange that a person nowadays seldom succeeds in having the residue of his property, after providing for his family, disposed of after his death as he desired during life. Neither relatives nor friends seem to hold it as a sacred duty to carry out his wishes, as respects his means, so soon as he is put under the ground. To seize upon another's property while he is alive, and appropriate it to one's uses without his consent, would be robbery, but after his decease there are no scruples in doing so, if the law should place no impediment in the way. How often do the newspapers of the day advise men of wealth to erect monuments to themselves, after their decease, by bequeathing money to endow colleges, to erect eleemosynary institutions, to organize libraries, to build widows' homes, etc.! They are told that such monuments will be far more enduring than those of brass and iron; for while these may corrode, the others will continue through the ages. But under existing laws, which are easily manipulated by the unscrupulous, and in our present state of society, which does not demand of persons to observe any higher code of morals than the enactments of a State legislature, what guarantee has a man of wealth that he will be able to erect such a monument to himself, by leaving his wealth, which he has labored day and night to secure, after his death to any of the meritorious objects mentioned? We would advise any one who proposes to dispose of his means in some other way than giving it to his relatives, to take the necessary steps before his decease, so long as the laws remain as they are, and the moral tone of society is no higher than now.

Dr. McIlvaine expressed to us a desire to leave his library to the Academy of Medicine of Cincinnati, but the obstacle in the way was that the Academy owned no building. A number of years ago he urged upon a number of the members, for the use of the Society, to join him in the purchase of a large two-story brick house upon Seventh Street between Race and Vine Streets, which could have been purchased at the time upon remarkably low terms. We remember that only $12,000 was asked—$2,000 down, and the remaining amount permitted to run any length of time on payment of the interest annually. The same property to-day would easily sell for $30,000. The house had a wide hall running through the center of it, with large rooms on each side. For a number of years an academy of music was held in it and another school. The doctor brought the subject before the Academy quite a number of times and urged the purchase. He had a committee appointed to consider some plan and report. But he could get neither the Academy as a body, nor any of the wealthier members to join him in forming a company to purchase the property, and was compelled to abandon the matter. If he could have brought about the purchase of this property, he would then have taken immediate steps to transfer his library to the society.

It was a great misfortune that the Academy of Medicine did not purchase this property. Such an opportunity will, no doubt, never be offered again. If it had done so, it would undoubtedly to-day be in the possession of Dr. McIlvaine's library, the $60,000 which he left for maintenance of it, and Dr. Wm. Mussey's library, and probably those of others. Dr. Mussey's library is now in the Public Library where, we understand, it is doing no good.

In conclusion we will state that the apathy of the members of the Academy of Medicine in regard to owning a building in which it could hold its meetings and have a suitable room or rooms for books and physiological and pathological specimens, is remarkable. We know of one or more very valuable libraries that would undoubtedly be bequeathed to it if it only had a secure building in which to place them. We have in our mind, especially, a library containing quite a number of works that can not be duplicated, which we know would afford the owner great satisfaction to be able to leave to a medical society, like the Academy, if it had a fire-proof building, and, in consequence of having such a building, he could rely upon its permanency. Would not the members generally, under such circumstances, bequeath to the Academy their libraries (such as have books enough to be called a library)? for it is well-known that the most valuable medical libraries, when sold by auction, frequently sell for only a trifle—for too small an amount to be of any important service to a family, unless left very needy; and then the Academy, if the library was very valuable, might appropriate to the bereaved an amount of money equal to what it would be conjectured would be realized by an auction sale —or purchase the most valuable works which would be difficult to duplicate.

THE NEW CURE FOR CANCER.—In the July issue of the MEDICAL NEWS, on page 492, it was mentioned that a correspondent of the *New York Medical Journal* states that the United States Consul at Pernambuco had forwarded to the State Department a sample of alveloz, a South American plant, with the information that several cases of alleged cancer had been cured by its application. On receipt of the drug, it is said, it was handed to the Marine Hospital Bureau for trial, and was applied by Dr. Smith Townsend, in a case of lupus of the nose, near the angle of the eye. The case was one of nearly forty years' standing, and had resisted all previous treatment. The ulcer was cured within a few days, and the patient was exhibited by Dr. Hamilton at a recent meeting of a medical society. The Doctor stated that he had under observation an undoubted case of epithelioma of the face, and promised to report the case at a future meeting.

A physician residing very near Cincinnati, a subscriber of the MEDICAL NEWS, was called to visit a married lady living in this city, aged thirty-nine years, whom he found affected with cancer of the uterus. Two other physicians, very intelligent gentlemen, also saw the case and unhesitatingly pronounced the disease cancer, with no possible hope of of cure. One of the two medical men is professor of diseases of women in one of the medical colleges of Cincinnati.

The physician, who has the case in charge, informs us that previous to his having taken charge, the patient was much exhausted by hemorrhage that had existed more or less every day for five weeks. Although he had no doubt of a fatal termination in a short time, yet, urged by the husband to do something to save the life of his wife, if possible, and having seen the notice of alveloz in the MEDICAL NEWS, to which we have referred, and impressed with the success which it was stated that Dr. Hamilton had had with the remedy, he determined to make a trial of it in this case. Accordingly a druggist of this city was instructed to procure some of it. The specimen obtained was labeled as "Milk of Alveloz."

The Doctor informs us that he has been using the drug topically for fourteen days, and that the improvement, in this case, is of a most marked character. On application of it to the os uteri, by means of a brush, there is an intense burning feeling, lasting from two to four hours. Absorption of the medicine evidently takes place, as, in six hours after each application, profuse discharges of urine occur and continue at intervals of two or three hours, until about a gallon has passed, although the amount of fluid drank is small. The local bleeding ceased after three applications to the os, and since then there has been, instead, a continuous flow of pus. The lancinating pains, which had been most severe, have entirely ceased. The patient eats and sleeps well since the application of the remedy, and has recovered her wonted spirits—enjoying conversation, music, etc. The skin has lost its deep sallow, dead-like hue and has regained its natural appearance.

Although a cure has not yet been effected, and a relapse may still take place—the patient finally succumbing—yet there is, up to the present time, great reason to feel much encouraged and to hope for recovery. If, in this undoubted case of cancer, a cure should result from the remedy now employed, there will be cause for rejoicing, for a hope would be inspired that a remedy for a most terrible disease had been found. We have been promised further reports.

THE ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS OF 1887—AND THE RECENT MEETING OF THE GENERAL COMMITTEE OF ARRANGEMENTS IN CHICAGO.—If things done in haste are liable to be repented of at leisure, we are inclined to think this liability will apply with much force to the recent acts and expressions of certain members of the profession in Philadelphia, and perhaps in one or two other cities, concerning the measures for the organization of the Ninth International Medical Congress. The Committee of Arrangements in session in Chicago did not adjourn until the afternoon of the 25th of June; and the meeting alluded to in Philadelphia was held on the evening of the 29th, before there had been time for the Secretary of the Committee of Organization to prepare the revised rules and appointments for the press, and consequently before they could possibly have anything more than a partial verbal report from some members of the Committee, on which to base their action. But notwithstanding this they proceeded with all due gravity to adopt *unanimously* the following Preambles and Resolution:

"WHEREAS, Certain serious changes have been recently effected in the preliminary organization and rules for the International Medical Congress of 1887, it has seemed desirable for the members of the General Committee and of the officers of the Sections resident in Philadelphia to meet for consultation; and

"WHEREAS, It has appeared that these changes are inconsistent with the original plan, and detrimental to the interests of the medical profession in America, and of the International Medical Congress, therefore be it

"*Resolved,* That we, the undersigned, consider that our duty to the profession and to ourselves requires us to decline to hold any office whatsoever in connection with the said Congress as now proposed to be organized."

That the reasons given in the Preambles for the course of action announced in the Resolution are disingenuous, to say the least, and entirely deceptive, we shall show more fully when we have for publication the full copy of the revised rules and plan of organization as adopted by the Committee during its recent session in this city. It will then be shown that the only change in the proposed "preliminary organization" of the Congress was the dropping of *one* vice-president and the adding of four or five others. The only changes in the sectional organizations were the reducing of the number to sixteen by merging three with others, and the changing of four of the chairmen, leaving twelve unchanged; and not a single rule relating to the working or modes of action either of the general sessions or of the sections was materially changed. Where, then, are the alleged changes so "inconsistent with the original plan" as to be "detrimental to the interests of the medical profession in America?"

Do they consist in the simple fact that the present Committee on Organization, instead of ostentatiously making its own committee officers *the officers of the Congress*, simply adopted the ordinary organization of a committee of arrangements to make suitable preparations *for a Congress?*

When the full proceedings come to be published in a connected and correct form, and it is seen that such proceedings have made no essential change in the general plan of organization of the Congress, or in the rules adopted for its government; that of the four chairmen of sections previously appointed in Philadelphia, three were retained in their places, and the fourth was disturbed only by transferring him to the vice-presidency of the section with which his own section had been united; and instead of confining the membership of the Congress to the membership of the American Medical Association, as is alleged, nearly or quite one-half of the sixteen chairmen of sections reappointed are not members of that organization, the medical world will not fail to see that the only foundation for the hasty movement of our honored *confreres* in Philadelphia *is* the simple change in the *personnel* of the Committee of Arrangements, and the practical denial of the assumption that the "various eminent specialists" of three or four cities and the medical profession of the United States are synonymous.

And if those who have been in such haste to condemn the action of the National Association, and the present Committee of Arrangements for the Congress, do not wish to occupy the unenviable position, before the world, of men determined to rule or ruin, they will take much more time to think before they make their next move.—*Editorial from Journal of American Medical Association.*

MEETING OF COMMITTEE ON ORGANIZATION OF THE INTERNATIONAL MEDICAL CONGRESS.—A meeting was held September 3d, in the city of New York, at which Dr. R. Beverley Cole presided, and Dr. J. V. Shoemaker acted as secretary.

The following "Rules" were unanimously adopted:

1. The Congress shall consist of members of the regular profession of medicine, and of such other scientific men as

the Executive Committee of the Congress may see fit to admit, who shall have inscribed their names on the register, and shall have taken out their tickets of admission.

2. The dues for members of the Congress shall be ten dollars each for members residing in the United States.

There shall be no dues for members residing in foreign countries.

Each member of the Congress shall be entitled to receive a copy of the "Transactions" for 1887.

3. The Congress shall be divided as follow, into seventeen Sections:

I. General Medicine; II. General Surgery; III. Military and Naval Surgery; IV. Obstetrics, V. Gynæcology; VI. Therapeutics and Materia Medica; VII. Anatomy; VIII. Physiology; IX. Pathology; X. Diseases of Children; XI. Ophthalmology; XII. Otology and Laryngology; XIII. Dermatology and Syphilis; XIV. Public and International Hygiene; XV. Collective Investigation, Nomenclature, Vital Statistics, and Climotology; XVI. Psychological Medicine and Diseases of the Nervous System; XVII. Dental and Oral Surgery.

4. The General Meetings of the Congress shall be for the transaction of business and for adresses and communications of general scientific interest.

5. Questions and topics that have been agreed upon for discussion in the Sections shall be introduced by members previously designated by the titular officers of each Section. Members who have been appointed to open discussions shall present in advance statements of the conclusions which they have formed as a basis for debate.

6. Brief abstracts of papers to be read in the Sections shall be sent to the Secretaries of the proper Sections on or before April 30, 1887. These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress.

Papers relating to topics not included in the lists of subjects proposed by the officers of Sections may be accepted after April 30, 1887; and any member wishing to introduce a topic not on the regular list of subjects for discussion, shall give notice of the same to the Secretary-General at least twenty-one days before the opening of the Congress, and such notices shall be promptly transmitted by the Secretary-General to the Presidents of the proper Sections. The titular officers of each Section shall decide as to the acceptance of such proposed communications and the time for their presentation.

7. All formal addresses, scientific communications and papers presented, and scientific discussions held at the General Meetings of the Congress, shall be promptly given in writing to the Secretary-General; and all papers presented and discussions held at the meetings of the Sections shall be promptly given in writing to the Secretaries of the proper Sections.

No communication shall be received which has already been published or read before a society.

The Executive Committee, after the final adjournment of the Congress, shall direct the editing and publication of its "Transactions," and shall have full power to publish the papers presented and the discussions held thereon, either in full, in part or in abstract, as in the judgment of the Committee may be deemed best.

8. The official languages of the Congress shall be English, French and German.

In the meetings of the Sections, no member shall be allowed to speak for more than ten minutes, with the exception of the readers of papers and those who introduce subjects for discussion, who may each occupy twenty minutes.

9. The rules and programmes shall be published in English, French and German.

Each paper and address shall be printed in the "Transactions" in the language in which it was presented. All discussions shall be printed in English.

DRUNKENNESS AT THE TIME OF CONCEPTION.—Prof. E. H. Trenholme, M.D., of Bishops College, Montreal, in speaking of drunkenness at the moment of conception, in the *Canada Medical Record*, quotes Dr. Lentz, of Tournai, France, who asserts that after careful investigation it has been found that drunkenness at the time of conception is a principal cause of those nervous affections met with in infants. The writer says he finds the intelligence and moral sense of such children tainted with the influence of the vicious habit. Children born of parents drunk at the moment of conception, generally died of convulsions or some other form of nervous disease; and if they lived at all, were epileptics, idiots or imbeciles, with a tendency to indecency, immorality, and general depravity. Such offsprings when grown up have an aspect peculiar to the diathesis: the head is small, physiognomy hebetudinous, and gaze stupid and expressionless.

Even such old writers as Aristotle, Plutarch, etc., speak of the evil effects resulting from intoxication at the time of conception. Prof. Trenholme thinks that the subject has not received the attention that its great importance merits, and that it can not be doubted that there is much truth in the views enumerated by Dr. Lentz. He says he has known cases where but one child of a large family had any desire for alcoholic liquor, and that child had been nursed by a mother who took her beer while doing so.

A child, now dead, was brought to our (Editor's) attention several years ago, both of whose parents were healthy and intelligent. The father, while not regarded a drunkard, was fond of wine and indulged in high living. He frequently attended parties, often met hilarious companions at night, eating suppers with them, and going home at the small hours of the morning very tipsy. One of two or three children begotten by him, was a boy too imbecile to learn to talk—could only utter a few of the commonest words—and was never able to walk. His limbs were perfectly formed, but seemed to be too wanting in nervous power to enable him to stand upon them. Until he was happily taken off by some passing epidemic disease, at four or five years of age—scarlatina, if we remember rightly—he throve well physically. We never had any doubt but that this child was conceived when the father was under the influence of liquor.

MATERIA MEDICA COLLECTION FOR STUDENTS OF PHARMACY AND MEDICINE.—Messrs. Parke, Davis & Co., of Detroit, have prepared cases for the use of students, pharmacists and physicians, which will be found very useful and convenient. Each one contains specimens of all crude drugs of vegetable origin recognized in the United States Pharmacopeia, and many not so recognized that are in common use —in all 288 specimens. Each case has several compartments, and is 23 inches in length, 16 inches in width, and 13½ inches in depth. Each specimen in it is put up in a little box, with a label bearing simply a number, an index or key accompanying the case; the index being alphabetically arranged, enables the student to find any required specimen without difficulty, while the absence of names on the labels enables him to practice himself in the identification of drugs.

With such a case the student of medicine or pharmacy can familiarize himself, practically, with the properties of drugs. The descriptions of text-books, even when aided by engravings, appeal only to the imagination, and the impression received from reading is consequently of necessity imperfect—often misleading and always evanescent. It is not enough even that the student have access to cabinet collections, although these render excellent service. It is only by having the specimen actually in hand, that, with the aid of a lens (magnifying glass, not telescope) and dissecting needle, he can intelligently follow the description of the manual.

With such excellent facilities for the study of materia medica which Messrs. Parke, Davis & Co. have furnished, we do not know how, hereafter, a physician can conscientiously have a student ot medicine in his office without having one of these cases for his benefit. Undoubtedly many of the common drugs are easily procured at a drug store for examination, but probably not more than a quarter or a half are thus accessible; and many of them are not of unquestionable authenticity.

These cases are offered at the very moderate price of $10.00. We understand that application should be made soon.

PROPER CREDIT.—The article on pages 645 and 646 of the September issue of the MEDICAL NEWS, entitled "International Medical Congress," should have been credited to the *New England Medical Monthly.* This journal is a very worthy and able publication, and is on the right side in the controversy which is going on in respect to the meeting, in this country, in 1887, of the *International Medical Congress*, and we desire to give it credit for any items of news we make use of from it. It does not believe that a few specialists in two or three of the Eastern cities constitute the medical profession of the United States.

ANTISEPTIC SOLUTION.—Dr. Sternberg advises gr. 30 each of bichloride of mercury and permanganate of potassium in a quart of water as a universal antiseptic and deodorizer.

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Original Contributions.

Urinary Deposits, and Their Relation to Health and Disease.

BY JULIUS A. POST, M.D., LANSING, MICHIGAN.

I DO not presume to offer anything new regarding urinary deposits, but shall simply group together, in convenient form, some practical facts and suggestions which have presented themselves to me while engaged in the examination of urine. These facts and reminders I have often consulted, and in my every-day work I find them exceedingly convenient. Few physicians care to burden themselves with the details of extensive manipulations of any kind, and no branch of medicine is more neglected than that of the urinary deposits. For my own convenience I have classed these deposits as non-crystallized and crystallized. The non-crystallized deposits are to us, as physicians, of great interest, and include blood, pus, mucus, epithelial cells, casts, spermatozoids, confervoid growths, bile, chyle, kiesteine, etc.

Blood.—We can not tell by the appearance of urine whether it contains blood corpuscles or not. If blood corpuscles are present they will hold their normal shape, and we can readily detect them with the microscope. The corpuscles may disappear very rapidly if the urine is ammoniacal and of low specific gravity, but if the urine is acid and of normal density, they will remain in perfect condition for several days. The corpuscles stand out distinct and well-defined, separate from each other. They do not run together in rouleaux as in fresh drawn blood. The corpuscles may, from imbibation, appear as pale circles with sharp outlines, and do not seem to have any cell contents. They may be bi-concave, or stellate or shriveled up. They are often confounded with some of the confervoid growths, or disklike forms of oxalate of lime or renal epithelium. If it comes from the kidney, it will be equally diffused throughout the urine, and has a reddish, smoky tint. If it comes from the urinary tract, below the kidneys, it will be of a pinkish or vermilion color, and is often deposited as clots. Urine containing blood is usually more or less albuminous. The cause of blood in the urine is sometimes very obscure and exceedingly difficult to determine. Usually it depends upon a local lesion, as from injury, calculi, overexertion, cancer, tubercle, Bright's disease, ulcers, abscesses, congestion, parasites; or is symptomatic, as in eruptions, fevers, cholera, mental emotion, scurvy, purpura; or is vicarious, as in asthma, hemorrhoids, menstruation. By far the larger proportion of cases of hæmaturia arises from injuries. It is present as a pathological symptom in a great variety of conditions. After burns the red corpuscles of the blood are decomposed and pass out with the urine. In severe burns the urine will be quite black. No red corpuscles will be found—it is the coloring matter set free by decomposition. To prove this condition we can extract the hæmatin crystals which have been set loose from the blood. Hæmatin crystals (hydrochlorate) are dark colored, insoluble in water, alcohol and ether; is found amorphous; when dried it forms a dark brown powder, and contains nearly nine per cent. of iron.

Pus.—The significance of pus will depend very greatly on its source, cause and quantity. It may come from any part of the urinary tract, as in gonorrhea, suppuration in the kidney, or cystitis, or from the adjacent tissue, as in the case of an abscess. Urine containing pus is milky or turbid when passed, and on standing deposits a whitish or yellowish sediment. If the urine be acid, the deposit will be loose and the pus corpuscle discrete. If it be alkaline, it will form a thick, viscid, tenacious mass. This latter appearance is diagnostic of pus. The pus corpuscle is a little larger than the red blood globule, and appears to be granular and yellowish, or opaque. Water and acetic acid expand the corpuscle, and will often bring the nucleus into view. Acetic acid will take out the albumen and the granular, fatty matter will remain. We frequently find the nucleus subdivided into smaller nucleoli.

Mucus.—Mucus is the so-called debris from the cells of epithelium within the follicles of the mucous membrane. After standing for some time we find, in perfectly healthy urine, a deposit of a flocculent nature, somewhat bulky and transparent and cloudy. This consists largely of delicate granular bodies and of irregular lines of granular substance and free cells of epithelium from the urinary passages. Nothing more exists in healthy urine. Pus is often mistaken for mucus. Vibriones and bacteria, vegetable fungi and torrulæ develop after standing for a time, and are easily found and observed with the microscope. In disease the mucus is largely increased, but its microscopic character does not differ from that above mentioned.

Epithelial Cells.—The urine contains a great variety of cells. The characters differ in different parts of the urinary passages. In the kidney the cells of epithelium of the convoluted tubes are called granular or secreting epithelium. They form a single layer upon the basement membrane. In the straight portion of the tubes the epithelium is flattened and resembles the scaly variety. It also forms a single layer on the basement membrane. In the pelvis of the kidney the epithelium consists of flat, thin scales, united together without overlapping each other, and this is termed tesselated epithelium. In the ureter the epithelium is of the columnar variety with a large and distinct nucleus, and is abundant. In the bladder the epithelium differs in different parts. The fundus is columnar, with large oval cells. In the triagone they are large flattened cells with a distinct nucleus. The columnar epithelium lines mucous follicles, while the scaly variety lies on the surface of the mucous membrane between them. The cells of the urethra are mostly of the columnar variety, but mixed with them there is a great deal of scaly epithelium. In the female the large scaly epithelium derived from the vagina is often found. These differ in their size and shape. Epithelium is composed of cells, no blood vessels, no nerves, no connective tissue; the cells are close together, and between them is a sticky substance. Some forms of cancer cells closely resemble bladder epithelium. The nucleus can often be brought out with acetic acid.

Casts.—The most important subject, and one which interests both patient and physician, is that of the tube casts which form in the kidney and are forced out with the urine

—casts are found only in structural disease of the kidney. The secreting function is impaired just in proportion to the destruction of the cells in the convoluted tubes. Casts come from the lower part of the straight tubes, and from no other part. We reason that the convoluted tubes are implicated by analogy. Casts are smaller than the tubes from which they come; after their formation they shrink away and are thus loosened and thrown of. Casts must be taken into consideration with the amount of urine passed, the specific gravity, the amount of urea excreted and the length of time that they have been present in the urine. Albumen may be present, and no casts, but, as a rule, casts will be found. Be sure that their presence is not accidental. Epithelial casts are coagulated parts of the blood, and in the casts are found the epithelium from the tubes. Size of epithelial casts $\frac{1}{700}$ of an inch in diameter; the cells in these casts are perfect cells, and have a well-marked nucleus and nucleolus. They indicate acute disease; they are formed in scarlet fever. Granular casts, about $\frac{1}{700}$ of an inch in diameter, are filled with granules from the breaking down of the epithelium of the tubes from which they come. They indicate a structural disease of a serious character. Large waxy casts are formed from the substance of the blood alone, and indicate that the tubes from which they come have lost their epithelium. Their diameter is $\frac{1}{500}$ to $\frac{1}{700}$ of an inch. Small waxy casts are about $\frac{1}{1,000}$ to $\frac{1}{1,200}$ of an inch in diameter, and have not the significance of the large casts. Fat casts are largely fat cells, or fat granules. Casts often contain pus, and the pus corpuscle is well preserved and retains its individual characteristics. Blood casts are found composed largely of blood corpuscles. The same urine may contain all these forms of casts. Epithelial casts and blood casts indicate a disease of an acute nature, or of recent origin. Waxy casts, transparent or mixed with granular casts, indicate a chronic disease. Casts containing fat or oil, indicate fatty degeneration. To stain casts take a drop of urine and a drop of Lugol's solution. It will give the casts a yellowish color. Eosin will give casts a pink color.

Spermatozoa.—One of the most difficult matters we are called upon to deal with in the practice of medicine, is the presence of spermatozoa in the urine. If they are present to any extent, they give rise to a mucous-looking deposit, and if in large quantity the deposit will be flaky, and viscid masses are quite readily seen. To examine carefully requires a microscope of from 200 to 700 diameters. Spermatozoa consist of an oval head, not more than 1-10,000 of an inch in diameter, and a delicate tail-like extremity. The length of the entire filamen is about 1-600 of an inch. When living they exhibit an active, eel-like movement, but as usually seen they are dead and motionless. They do not decompose readily and may very often be found after the urine has been standing for some time. After coition the urine of both sexes will contain a small quantity of seminal fluid. A glairy discharge often accompanies this condition (spermatorrhœa) of the urinary apparatus. In case of rape we are often called upon to examine the contents of the vagina. Clothing, stained with seminal fluid or vaginal discharge, after having been dried, can be remoistened, and if spermatozoa exist they can usually be found. They are vegetable growths, and a cell-like growth with a tail-like extremity, called trichomas vaginæ, found in the vagina of females who suffer from leuchorrhœa, which resemble spermatozoa.

Confervoid Growths.—If urine contains mucus, either in the bladder or out, vibriones or bacteria are liable to appear. They are evidence of decomposition. They are active and move in a serpentine manner. Round bacteria are termed micrococci, and the long, rod-like bacteria are termed bacteria termo. Mold fungus, or pencilium glaucum, has no color; is a product of decomposition and forms readily; is a fungus mold, and has spores, capsule, and a seed. The first stage is that of spores; second stage is the seed or bag stage. Is sometimes divided by fibres in the stalk into compartments. Process of buds is characteristic of spores.

Torula is the yeast fungus. It passes through exactly the same stage as the pencilium glaucum; is developed in diabetic urine.

Sarcinæ.—Occasionally met with in the urine, but more often in matter ejected from the stomach.

Chylous Urine.—Is confined almost entirely to the tropical climate. The urine is white and opaque like milk, coagulates after standing, and breaks up into small clots. Is coagulated by heat and nitric acid. Granular matter appears under the microscope, and sometimes red blood corpuscles. The amount of chyle at times will be large, and again very small. The presence of chyle is owing to some derangement of the organs of assimilation.

Bile.—In jaundice and organic disease of the liver, the coloring matter of the bile is excreted by the kidneys, and gives the urine a saffron yellow or olive green color. Bile pigment appears in the urine before the skin is discolored. Urine containing bile will change to a green color from oxidation of the biliary pigment after standing for some time. Pettenkoffer's test is the most convenient and satisfactory test to employ. Dr. Harley considers that the presence of bile in the urine indicates a retention instead of a suppression of bile.

Kiestine is a peculiar pellicle containing fatty and cheesy matter found in the urine of pregnant women. It is thought to be a fungus mold which develops in urine rich in organic matter. The urine of pregnant women is particularly fitted for the development of this fungus. Rhubarb, senna, logwood, santonine, and creosote, given internally, and the external application of tar, as in ointments, etc., will change the color of healthy urine.

Perhaps the second class of deposits, which we will call crystallized deposits, is of more interest than those we have described under the first head. While some of the crystals found in the urine indicate a diseased condition of some particular organ or organs, most of them are the result of changes which occur during decomposition, or from indigestion or some nervous derangement, and often arise from some remote cause. They are of special interest to the microscopist, and offer a wide field for investigation. Those which we will notice are the most common, and something which we can find by the most superficial examination. We can, in most cases, easily preserve them as mounted specimens, and nothing that I can place in my collection is of more interest to me, or to those whom I wish to entertain with the microscope, than some of the crystals which we find in the urine.

Phosphates.—Phosphates of ammonia and magnesia are frequently found in the urine, and are known as the triple phosphates. They are usually found as amorphous granules and small round globules, but many are crystalline, others prismatic, and in fact they present a great variety of beautiful forms. The fern leaf crystals and the snowflake crystals can be well preserved, are easily mounted, and make a valuable addition to a microscopic cabinet. These crystals are readily soluble in nitric and acetic acid. If ammonia be added and the urine allowed to stand, crystals of the triple phosphates will readily form. If too much ammonia be added the deposit will be feathery. It is said of the triple phosphates, that they appear in the urine of persons who suffer from disease of the spinal nervous system or paralysis, and that stellate phosphates indicate a grave condition of the system. A more enlightened view of the snbject has convinced the professional world that the presence of triple phosphates is due wholly and entirely to the alkalinity of the urine; that it is not due to disease of the nervous system, and has no relation to any disease. Triple phosphates and urate of ammonia are often found together. There is no danger from the presence of these phosphates, except the possible one of stone formation. Urine containing triple phosphates is generally offensive, ropy, contains mucus, has undergone decomposition, and is intensely alkaline.

Urates.—Perhaps the most common deposit found in the urine are the urates. They consist of urates of soda, lime, ammonia, and magnesia. They occur as a red, a brick dust, or lateritious deposit. Sometimes they contain but little coloring matter and are quite colorless. They are soluble in boiling water and in potash, and entirely disappear when the urine is boiled. They are present in health, and abundantly so in diseases which are attended by a high febrile condition, particularly rheumatism, and after violent exercise and prolonged fasting. If we add acetic acid in excess they are decomposed, and after standing for a time uric acid crystals will be deposited. The urates are destroyed and entirely combustible when exposed to a red heat. They are often deposited as a granular substance on the surface of casts, epithelial cells, and other urinary deposits. Most physicians are familiar with cases where the urine has been passed in a chamber on a cool morning, the urates speedily deposited, and the person made quite anxious by the discovery of the deposit. A low temperature, a high specific gravity, and acid reaction are favorable to the deposit of the urates.

Urate of Soda.—Is a rare deposit and is usually associated with gout or a high febrile condition. These crystals are sometimes surrounded by sharp spines, and are called "hedge-hog" crystals. These spines irritate the urinary passages and bladder, and often form a nucleus for stone. It is sometimes deposited in the bladder in children as a result of numerous febrile attacks.

Urate of Ammonia.—Occurs as dumbbell crystals, spheres, crosses, and rosettes. They are usually of a whitish color. They have no special clinical importance, but are deposited when the urine is alkaline. We can form urate of ammonia crystals quite readily by adding to the urine muriate of ammonia.

Uric Acid.—Found in minute quantity in perfectly healthy urine, combined with alkaline bases. When abundant, can generally be seen by the naked eye. May be deposited at the bottom of the test tube or on the sides of the glass, as brilliant brown specks resembling cayenne pepper, or form a delicate film on the surface of the urine. Urine which contains a large quantity of uric acid is generally of an orange yellow color. Uric acid is exceedingly insoluble in water, alcohol, and ether, but dissolves quite readily in caustic alkalies and weak solutions of potash, soda, borax, and phosphate of soda. Uric acid forms the base of a very large proportion of urinary concretions. Uric acid is closely allied to gout. The crystals are of large size, and we call them boulder crystals. They are apt to run together or overlap each other. They assume a great variety of forms. At times they are boat-shaped or barrel-shape, but the primary uric acid crystal is a rhombic prism or some of its modifications. The amount of uric acid excreted will vary from day to day, and according to the habits of the individual and his mode of living. No particular importance is attached to the deposit of uric acid if the deposit is found some hours after the urine is passed. It must be present in fresh urine to have any clinical significance. This excretion possessed of another particle of oxygen becomes urea, and ceases to be a pathological product. Permanganate of potash is said to yield up its oxygen in the form of ozone and to convert uric acid into urea. An excess of uric acid is one of the most common causes of irritable bladder, and indicates a systemic, and in particular, an alimentary defect. This excess is owing to a failure of the secreting cells of the liver to properly perform their part in the digestive process.

Oxalate of Lime appears like a slight cloud of mucus, and is seldom noticed. In the deposit-glass we notice delicate lines passing along the sides of the glass and the glass appears to have been scratched. The deposit is somewhat peculiar and consists of two parts, an upper strata of whitish appearance, and a lower strata of mucus-like substance. The scratched appearance is owing to the crystallization of the oxalate of lime upon the glass, and the only other substance which crystallizes in this manner is uric acid. Uric acid crystallizes in heavy coarse lines quite unlike oxalate of lime. These crystals are insoluble in water, vegetable acids, alcohol, and ether, but dissolve quite readily in mineral acids. Urine containing these crystals is acid and high colored. It is said that they never appear in alkaline urine. Oxalate of lime crystallizes in dumbbells, pyramids, octohedra, ovoids, etc. To be of clinical significance the deposit must be constant and in large quantity. The great danger is from stone formation.

Most physicians have certain rules which guide them in making urinary examinations, and the following has, to me, been quite convenient and, in a measure, satisfactory. While I do not claim that they are all that we can desire, perhaps I may be pardoned for saying that I think if each physician should give to the urine some of the attention which these may call for, he would get a good practical idea of the workings of the urinary apparatus, and of the physical condition of his patient.

The examinations most often required are for sugar, albumen, phosphates, urea, specific gravity, and its action on litmus paper. In making an examination, take a small quantity of the filtered urine for each separate test and note the reaction, reserving each test until after the examination is completed. The quantity of urine passed each day rarely exceeds fifty-five fluid ounces, yet more may be passed and all be perfectly healthy. Urine may contain: (1) Too great or too small a proportion of one or more of its normal constituents, to-wit: urea, uric acid, urates, phosphates, chlorides, etc.; or (2), it may contain one or more substances not usually found in healthy urine—as albumen, sugar, blood, pus, bile, chyle, etc. Take the urine passed in the morning, filter it, take reaction, specific gravity, add nitric acid, and if crystals form abundantly, there is an excess of urea; if there is a precipitate, albumen may be present. Then heat a portion; if a precipitate, look for albumen or phosphates. To this precipitate add nitric acid, and if the phosphates be present they will be dissolved; but albumen will remain. Test a portion by nitric acid alone, without heat; if this give a precipitate of a light color and abundant, look for albumen; if it be scanty and of a red color look for uric acid. If blood be present and the urine boiled, a dark coagulum will form. If a quantity of urine be boiled to a thin syrup and a few drops of nitric acid be added and the dish containing the urine be set on ice, crystals of nitrate of urea will be deposited. Urea represents the wear of muscular tissue, and the amount passed in 24 hours will vary from 355 to 463 grains. If the urine be above 1,020 specific gravity it may contain sugar, but if it be 1,035 to 1,040 it is quite likely to be diabetic.

In testing for sugar use Frehling's solution made by Dr. Squibb, of Brooklyn. Put one-half inch of the solution in a test tube, boil, add urine drop by drop; when you have added eight or ten drops a yellowish color will be noticed. If the reaction is not immediately apparent, set it aside and let it cool, if there is no deposit when cool, there is no sugar. Mix urine with a warm solution of urate of ammonia; if it gives a pink precipitate it is purpurine. Urine is deprived of albumen by heat and filtering. To a portion thus treated add a few grains of sugar and sulphuric acid, drop by drop; if it gives a deep red color, bile is present. A solution of nitrate of silver precipitates the chlorides. The precipitate may be separated and dried at 212 degrees, and each grain thus obtained represents four-tenths of a grain of the chlorides.

Unfiltered urine, if milk color, or gives a heavy white deposit on standing, contains chyle.

Deposits of a greenish yellow color, easily diffused by agitation, indicates pus.

Deposits, ropy, shreddy, and tenacious, indicate mucus.

Deposits soluble when heated, urates.

Deposits soluble in ammonia, cystine.

Deposits soluble in acetic acid, earthy phosphates.

Deposits insoluble in acetic acid, oxalate of lime.

Deposits crystalline, uric acid, lime, phosphates.

Deposits amorphus, readily soluble by heat, faintly colored, are urates.

Deposits strongly colored, slowly soluble by heat, are urates tinged with purpurine.

Insanity Dependent Upon Physical Disease.

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Having within the last few years, at the request oft he State Medical Society, prepared two papers, setting forth—First, "The Necessities of the Insane of Tennessee," and in the second having urged the provision of "Adequate and Impartial Hospital Accommodation for all the Insane of the State," and having placed these papers upon the desks of members of the *General Assembly of Tennessee* for two sessions, I now propose to show—and largely, by the testimony of others,—that Insanity is dependent upon physical disease, and hence should be recognized and provided for by the State.

If it were either moral depravity or mental disease, it might justly be regarded as above and beyond the pale of our profession, and without the sphere of legislation as well; but clearly recognizing physical infirmity as the cause, we must make recognition of duty, in connection with its judicious treatment; and that we may wipe out the reproach incident to having one thousand or twelve hundred helpless insane unprovided for, let us see to it that we henceforth vote for men who will favor the enactment of such a bill as I had the honor of introducing in the 38th General Assembly, under the provisions of which, hospitals for East and West Tennessee were to be constructed, and a building of surpassing beauty was really commenced near the city of Knoxville.

There are, as you know, three theories of Insanity. The first, that it is disease both of the brain and of the mind, of the organ and the secretion, or product of the organ.

The second is the purely psychical view, in which the mind is made the immediate seat of disease.

The third and, as I shall aim to show, the true theory is, that insanity is disease of the brain, or nervous system, or in the language of another, "a morbid physical state; and not in any sense a disease of the mind, but only, so far as the mind is concerned, a disturbance of its manifestations," and, other things being equal, this theory should commend itself to the hearts and consciences of all good men, because it allows a soul or spirit independent of bodily conditions or bodily infirmity; it makes recognition of "the brain as the instrument of the mind, and as only the transient physical instrument of mental action;" moreover, it assumes that abnormal or unhealthy condition of the brain or appendages must exist as a condition precedent to the development of insanity, as a condition precedent to mental alienation or disorder.

The first is the somatic theory—*i. e.* pertaining to the body, and makes mind to be an entity circumscribed by the conditions and limitations of physical nature; makes mind to be a secretion of the brain or an effect—a mysterious effect of cerebral action."

"All intelligence," says Cabanis, "consists in sensation, and all sensation resides in the nerves."

Feuchtersleben says—"The somatic theory assumes the operations of the mind to be an emanation from those of the body, and considers mental disorders to be merely bodily ailments."

And Prof. Tyndall, in his peculiarly oracular and dogmatic style, has but recently enunciated: "The animal body is just as much the product of molecular force, as the stalk and ear of corn; or as the crystal of salt, or sugar." The formation of a crystal, a plant, or an animal is, says he, a purely mechanical problem. "Not alone the mechanism of the human body, but that the human mind itself, emotion, intellect, will, and all their phenomena, were once latent in a fiery cloud."—*Medical Times and Gazette, Nov.* 7, 1874.

This style of dogmatism may suit well the self-importance of an infidel philosopher—himself on the dark side of the illuminated cloud. It is, however, by no means conclusive as to the points asserted, and is only in keeping with the somatic theory, formulated by another, and rightly denominated materialism.

The second and psychical theory enunciated by Heinroth, but of ancient origin, is essentially this, that insanity is *disease of the mind*, a perversion of *the soul.* Ideler regarded it as an immorality, and said—"The mind is the immediate seat of the disease, the bodily suffering secondary. Mental disorders may be clearly traced to their origin in sin, error, passion." Such having for cycles of centuries been the prevailing opinions of the best psychologists and other cultivated men, in regard to insanity, it is by no means wonderful that the suffering insane were for hundreds of years regarded as possessed of devils, and "given over to the tender mercies of priests, to be treated for the good of their souls."

Burrows, in his comments on Insanity, says: "Madness, which is but another name for insanity, is one of the curses imposed by the wrath of the Almighty, on his people for their sins; and deliverance from it is not the least of the miracles performed by our Savior."

But refreshing truly are the words of Winslow. In his lectures on Insanity, p. 52, he says: "Can we conceive of a more preposterous notion than that sanctioned by high authority, which inculcates that the spiritual principle admits of being distorted, deluded, depressed, exaggerated, perverted, exalted, independently of any bodily disease or modification of nervous matter?" and he significantly inquires, "Is it necessary that I should, in this advanced age of the science of physiology, stop to argue the question, whether the brain be or be not the material organ of the mind?"

Authorities might be greatly multiplied. My object, however, is only to indicate the tendencies of the different theories which have from time to time prevailed, and which do even now, to some extent, prevail in the different nations and classes of society; and withal, to point out as best I can, the one most worthy of favorable consideration and regard; the one altogether worthy your acceptance, and this brings me again to the third, and, as I have before stated, to what I regard the correct theory of insanity. I have elsewhere said, it should be the aim of the teacher in this department to point out the causes of insanity; its relations to, and dependence upon, physical disease; and to indicate the most approved methods of treatment; that regarding, in common with other alienists, mental disorders as but higher manifestations of brain or nervous diseases, I would urge the importance of studying the various phases of insanity as other diseases are studied—from a pathological standpoint. I stated moreover, that having for many years been in charge as Physician and Superintendent of the Tennessee Hospital for the Insane, I proposed to illustrate and enforce facts by reference to observations made during those years of hospital practice, which, elsewhere, I have also done.

Professor Maudsley, when speaking of physical causation, says: "I am tempted sometimes to think that no person goes mad, save from palpable physical causes, who does not show more or less plainly by his gait, manner, gestures, habits of thought, feeling and action, that he is predisposed to go mad." And again, in further support of physical disease as the cause of insanity, he says: "It can not be in the normal order of events, that a healthy organism should be unable to bear ordinary mental trials, much less a natural physiological function, such as the evolution of puberty, the puerperal state, or the climacteric change," and additionally remarks, "We have not to deal with disease of a metaphysical character, which the methods of inductive inquiry can not reach, nor the resources of the medical art touch, but with disease of the nervous system, disclosing itself by physical and mental symptoms.

"Mental disorders are neither more nor less than nervous disorders, in which mental symptoms predominate; and their entire separation from other nervous diseases has been a sad hindrance to progress. It is quite true, that when we have referred all the cases of insanity we can, to bodily causes, and grouped them according to their characteristic bodily and mental features, there will remain cases which we can not refer to any recognizable bodily cause, or connect with any bodily disease, and which we must be content to describe as idiopathic.

"The explanation of these cases we shall probably discover ultimately, in the influence of the hereditary neuroses, and the peculiarities of individual temperament." The same eminent author says the "insane neuroses which the child inherits in consequence of its parent's insanity, is surely a defect of physical nature, as is the epileptic neurosis, to which it is closely allied," and in regard to this hereditary neurosis says, "Past all question it is the most important element in the causation of insanity," and this brings to mind a correlative fact as found on the 17th page of perhaps the last biennial report of Dr. J. H. Callender, present Superintendent of the Hospital for the Insane. Of 207 insane citizens admitted during the period embraced in the report, he records hereditary transmission, or what Maudsley would call insane neurosis, as a cause of 100 cases. While, perhaps, I might not regard this natural transmitted infirmity, this instability of nerve element, so productive of insanity as some other alienists do, and while I would receive Maudsley's assertion that *insane neurosis is in fact latent madness*, with some grains of allowance, I nevertheless regard this inherent, morbid, elemental factor as the worst possible inheritance for the children of men; and I now firmly believe, what Maudsley is "tempted to think," that insanity is uniformly the result of physical disease.

Dr. John P. Gray, editor of the *Journal of Insanity* and Professor of Psychological Medicine in Bellevue Medical College in 1868, and consequently two years before the publication of Maudsley's views, in an address before the New York State Medical Society said, "Insanity is now generally recognized as a bodily disease, a disorder of the brain, and must take its place in the category of the neuroses, and is, in fact, the highest expression of this class;" and Dr. Brigham, who preceded Dr. Gray, both as editor of the *Journal of Insanity* and as Superintendent of the State Hospital of New York, many years ago, wrote thus explicitly, "The phrase, derangement of the mind, conveys an erroneous idea; for such derangement is only a symptom of disease of the head, and is not the primary affection."

Professor W. G. Brien, LL.D., of the University of Tennessee, has recently asserted that "all the errors of the law, in relation to insanity, have originated in the theory that it is disease of the mind," and you, Mr. President, will readily see that to have errors retained in law, while discarded in medicine, is not at all remarkable, since the one is proverbially the science of precedent, the other of experiment and observation.

Cabanis, in sustenance of his materialistic theory, says: "To obtain a true idea of the operations by which thought is eliminated, the brain must be considered as a particular organ especially designed for its production, even as the stomach and intestines for carrying on digestion, the liver for secreting the bile, the parotid and maxillary, and sublingual glands, for the preparation of the salivary secretion;" and Prof. W. A. Hammond, of New York City, writing on sleep and its derangements, almost a century after Cabanis, uses the following language: "Writers who contend for the doctrine of constant mental activity, regard the brain as the organ or tool of the mind; a structure which the mind makes use of, in order to manifest itself. Such a theory is certain to lead them into difficulties, and is contrary to all the teachings of physiology." The full discussion of this question, says Dr. H., "would be out of place here. I will therefore, only state that this work is written from the standpoint of regarding the mind as nothing more than cerebral action; just as a good liver secretes good bile, a good candle gives good light and good coal a good fire, so does a good brain give a good mind. When the brain is quiescent there is no mind." Thus it is, that a learned and lucid writer is now reviving and teaching annually to classes of young gentlemen in the city of New York, the doctrine of materialism, as it was taught by Cabanis and other physicians and philosophers almost a hundred years ago in France.

If mind be indeed nothing more than the result of cerebral action, it follows of course that upon the cessation of cerebral action, the human mind is forever extinct.

But this modern author and professor of Psychological Medicine, says explicitly, "when the brain is quiescent there is no mind."

If the Bible is indeed a revelation from God, and the American people surely do so regard it, then it is true, that the disclosures of science must harmonize perfectly with its teachings. In other words, nature and revelation, having alike God for their author, must reflect light and honor upon each other. I have no disposition to assume sanctimonious pretensions here, or elsewhere; and I am truly thankful that I have none of that squeamishness consequent upon secret doubts of the truth of the Christian Scriptures, which will prevent my confronting the utterances of Cabanis and Hammond, with the writings of Paul or of his companion, the beloved physician—Luke.

However self-reliant and dogmatic these materialistic philosophers may be, or may have been, those distinguished Christian observers and philosophers, having more exalted privileges—having also a nobler faith, might well say, "We are always confident, knowing, that whilst we are at home in the body, we are absent from the Lord. For we walk by faith, not by sight."

"We are confident," said Paul, "and willing rather to be absent from the body, and to be present with the Lord."

In all the realms of nature there is immortality—perpetuity, and nothing lost anywhere. Men constantly

"See dying vegetables, life sustain,
See life dissolving, vegetate again.
All forms that perish other forms supply,
By turns we catch the vital breath and die."

Life and immortality are, however, brought to light in the Gospel, and Christian confidence inspired, that to be absent from the body, is to be present with the Lord.

Greisinger, in speaking of emotional influences in the causation of insanity says, "it may be direct or indirect." He mentions the emotions, particularly "the passed off psychical phenomena, as the immediate originators of the mental disease, inasmuch as they produce a state of intense irritation of the brain, which now continues. More frequently, however, the insanity originates indirectly through the medium of a pathological process, from the psychical cause, inasmuch as they, in the first place, bring about further deviations from the normal organic processes in other parts, from which the cerebral disease proceeds as a secondary result. If we consider the fact previously spoken of, that the emotions ordinarily disturb sympathetically the functions of the organs of circulation, respiration, digestion, and of the blood formation, we will easily understand how these, when long continued or very violent, must cause slight disorders of these functions; and those individuals are most easily affected in whom emotions are most easily excited." Very frequently the cerebral disease commences when after long oscillation some serious pathological change has gradually arisen in some other organ. It is easily comprehensible that those consequences of the emotions are most frequent and dangerous in the period of life in which the organism is subjected to the greatest expenditure of force, in order to its development and further growth, and in which it generally is most capable of disease, viz.: at the period of puberty, during child-birth, and the climacteric period."

However directly or indirectly emotional influence may operate in the production of insanity, Greisinger admits the doctrine of pathological change, even here; he admits irritation of the brain, aye, "intense irritation of the brain which now continues;" while he does not define the condition, he admits the potential cause, under emotional influences, to be *physical disease*—disease of the brain superinduced by emotional influence, and thus he gives the order: "It is by no means rare after some untoward event, which immediately caused disturbance of the cerebral processes, to see the patient become again mentally quiet; but he begins to feel ill, to suffer in various other organs, and it is only after years of constantly increasing deterioration of the constitution, owing to the development of anæmia, or other chronic disease, that mental disease is established; under such circumstances, emaciation, indigestion, sleeplessness, palpitation, cough, cerebral congestions, nervousness, hypochondria, neuralgia, menstrual irregularities and various anomalies of sensibility supervene. Tuberculosis, chronic heart diseases, are now awakened or rapidly aggravated, and out of these pathological mediators, between the first causes and ultimate results, mental diseases proper are finally established."

While, as has been more than intimated, there may be cases of insanity where the most skillful pathologist will fail to detect organic lesion, you will not hasten to the conclusion that disease of the brain does always produce insanity. There have been some most remarkable cases to the contrary. One for example, is the celebrated case of Phineas Gage, reported for the *American Journal of Medical Sciences*, July, 1856, by Dr. Henry J. Bigelow. "The patient, by the premature discharge of a blast, had a tamping iron with which he was ramming down the powder driven through his head, from below upward. The tamping bar was 3½ feet long, and weighed thirteen pounds. It entered at the ramus of the left jaw, passing under the zygomatic arch behind the eye, through the anterior part of the left hemisphere, and across the corpus callossum and the margin of the right hemisphere, involving the loss of the whole central part of the left anterior lobe, together with extensive laceration of the spheroidal or middle lobe, the right central lobe, the falx and the longitudinal sinus. The patient not only made a perfect recovery, in a physical sense, but by every known test that was applied, either subjectively or objectively, to his mind, failed to exhibit the slightest impairment of any intellectual faculty."

Professor John Ordranaux, who saw Gage shortly after the accident, and before he was under the care of Dr. Bigelow, says the brain could be perceived pulsating in very nearly the original place of the anterior fontanelle; and though he had lost so much brain substance, and a compress of tea lead was kept upon the wound to prevent the extrusion of the brain, he had lost nothing of mental power or sagacity, and was entirely clear in all his mental processes."

Only a year or two since, a paper was read at the Capitol, in the State Medical Society, reciting among other things a considerable loss of brain and subsequent recovery of a patient; a professional brother objected to the publication of the paper, and very evidently because of the reference to the loss of brain and recovery thereafter. I then incidentally referred to the case of Gage and to the loss of brain in domestic animals, and many of you, doubtless, are familiar with cases of the kind.

Some years ago, when in St. Augustine, Florida, I met a distinguished ex-Superintendent of the New York Hospital for the Insane. He was living in St. Augustine, because he could not live in New York. He was breathing from one lung and doing an extensive practice in that ancient city, and was apparently enjoying a good degree of health. But Bigelow's patient, Gage, and the ex-Superintendent of the New York Hospital have both passed away, and doubtless from causes incident to their already mentioned peculiar afflictions.

Fortunately for such cases, in every department of organic life there is a store of surplus energy, or, if you please, such an amount of vital force held in reservation, over and above that which seems necessary for ordinary organic or functional operations, as will not only enable the organism to ward off disease, but measurably to build up the wasted powers where disease has existed. No one, however, can justly imagine a condition of perfect health compatible with the absence *of perfect and healthy* organism.

In a really sound organism, where each structural element is perfect, we have physical health and normal mental manifestation.

Report of a Case of Instantaneous Death by Lightning.

BY HENRY F. FORMAD, M. D.

With Some Observations on the Effects of Lightning on the Human Body. By Henry Beates, Jr., M.D.

Read before the Philadelphia County Medical Society, Sept. 16th, 1885.
Reported for the CINCINNATI MEDICAL NEWS.

On August 20th, 1885, Dr. Formad was summoned to inquire into the circumstances of the death of Mary R., a mulatto woman, aged 61, resident of West Philadelphia, and said to have been killed by lightning the evening before. Dr. Formad did not, at first, feel convinced that lightning had been operative in causing the death of the woman, because there were no visible marks on the body or evidence of any kind at the locality of occurrence. The testimony, however, of reliable witnesses, and the fact that a severe thunder-storm prevailed at the time of her death, supplied confirmatory evidence concerning the alleged cause of destruction of life. The deceased was a robust woman who had always enjoyed excellent health. On the day of the accident she, with her husband, nephew and son, were seated in the order mentioned on a wooden bench, which was placed under a tree. The individual killed was seated on the end approximate to the trunk of the tree. The storm was approaching, and as the rain had not commenced to fall, they remained watching the unusually heavy clouds. Suddenly the flash occurred, instantly killing the woman, rendering temporarily unconscious the nephew, and occasioning a transient anæsthesia of the feet of the husband. The nephew remained totally unconscious for about twenty minutes, and partially conscious for five or six hours, by which time he was thoroughly himself. The only pain experienced was a deeply-seated epigastric, which persisted for forty-eight hours, and headache of one day's duration. The anæsthesia, which was limited to the lower extremities, was pronounced for two days, when it began to ameliorate, and in the course of a week had entirely disappeared. The sphincters escaped and there were no local paralyses. In this case careful examination failed to discover any traces of lightning burn. The husband simply suffered slight numbness of the feet, which lasted for an hour or two and disappeared. Interrogation revealed the fact that the nephew did not experience any pain at the reception of the shock, and the only thing he remembers is his recovery of senses, just as if awakening from a deep sleep, with a loss of power and sensation of extremities, for the cause of which, until the commotion was explained, he possessed no satisfactory solution. The husband experienced a sense of pain accompanying the shock.

REMARKS CONCERNING THE AUTOPSY OF DR. FORMAD'S CASE OF FATAL LIGHTNING STROKE.

The fact that there was total absence of rigor mortis and coagulation is of special interest, as contrary teaching receives the sanction of high authority. Hunter, I believe, is responsible for the assertion that death by lightning is characterized by absence of rigor mortis and coagulation of the blood; a dictum believed and adopted by the profession at large for a number of years, until instances were observed in which the contrary obtained. The contradictory testimony resulted in the institution of an elaborate series of experiments on animals with electricity, by means of the Leyden jar. Among the most noteworthy were those of Benjamin W. Richardson, who concluded that rigor mortis and coagulation of the blood constitute in an especial degree the direct effects of fatal shocks of electricity. A review of the fatal cases of lightning stroke discloses the fact that instantaneous death is occasioned, first, without external evidences, secondly, with; the latter consisting of burns, manifesting themselves in different degrees in the same subject; and it is a matter of remark that in almost all of those in whom there is wanting external evidence, absence of rigor mortis and organic alterations of the blood, resulting in destruction of its power to coagulate, exist, while when burns, bruises, etc., are present, there also is rigor mortis and coagulation. This conclusively demonstrates that the lightning bolt effects its fatal consequences in a diverse manner; one in which the force effects fatal results by direct action upon the centre of the organism, probably, as in the instance reported this evening, by injuring the cerebro-spinal centres; the other by a diffuse process, in which both the exterior and interior are involved. Interesting hypotheses here suggest themselves regarding both the physiological law governing the conditions under consideration, and the effects of electricity and the determining powers that occasion its varied effects or distribution of its force. It is asserted by some observers that lightning flash is composed of a potential element and a heat or flame element, and that the different effects are manifest as one or the other predominates. A feature of lightning stroke is that when there are two or three individuals in a group, one is usually killed and the others escape with varying degrees of injury. When the bolt is great, one is killed instantaneously, while another, as in a case reported in the London *Times*, may be so seriously injured as to die from the secondary effects. A description of the autopsy of such an instance is here quoted. An animal and three men were sheltering from rain under an oak tree. A lightning flash instantly killed one of the men, while the other was rendered unconscious. When consciousness was recovered he was found to be hemiplegic on right side. He lived nine days, when death ended his sufferings. Autopsy: Abdomen tympanitic, hair of head not singed, while that of the pubis was much burned. It appeared that the lightning entered behind the right ear and passed to right foot, there being a broken line of dark red scars extending between these points. A cut existed at the point of entrance simulating closely that made by a sharp knife. The dark red scars or wheals on the neck were half an inch in breadth, and in some places were characterized by true blisters that had burst. On the chest was a curved line of burn that had evidently been caused by the heated watch chain. From this point a burn about five inches long and two inches wide existed, to Poupart's ligament, and was the result of the heated watch burning through the pocket. From inside of right knee to inner malleolus was a broken line of scars about 1½ inches wide. At bend of ankle a scar existed and the skin was broken. Below this point no evidence existed. Upon removal of scalp, patches of ecchymoses were found between the layers of the temporal fascia. Over the right side of brain, beneath the dura mater and extending over the middle and posterior lobes, were clots and effused blood. Under these clots the cerebral substance was softened and easily torn when touched. Throughout the substance blood was effused. The congestion extended to the sulci. The middle meningeal artery was ruptured and the lateral sinus on the right side filled with clots and fibrinous deposits. The right lateral ventricle contained a quantity of bloody serum, and the whole arachnoid membrane was in a condition of opacity, with the vessels conspicuously engorged. Left brain: lateral ventricle filled with a clot an inch broad, which encroached upon the corpus striatum. The corpus striatum, optic thalamus, tænia, semicircularis, roof and walls of ventricle, were so softened that the fall of a gentle stream of water occasioned breaking down. A clot, which was a portion of that in the ventricle, was found in the substance of the optic thalamus and impinging upon the crus. The fifth ventricle contained effused bloody serum. Abdomen not examined. These results possess a bearing upon the therapeutic application of electricity, and it is with a hope that the experience of members present may contribute some definite knowledge regarding the conditions which determine specific effects of diverse nature of electricity upon the human body, that the report is submitted for consideration.

A Fatal Case of Fibroma of the Uterus.

BY J. M. ANDERS, M.D.

Read before the Philadelphia County Medical Society, Sept. 16th, 1885.

ON the evening of August 27th, 1884, Mrs. G., aged 46 years, possessing, to all appearances, an admirable physique, called on me for the purpose of obtaining relief from two symptoms, namely, bleeding from the womb, this being almost continuous, and a feeling of general weakness. With the single exception of a somewhat blanched appearance of the face, no other symptoms could at that time be elicited. For these symptoms I prescribed the fluid extract of ergot and the sulphate of quinia, giving both remedies in moderate doses. It should be remarked that the previous history which she gave of her case was about as follows: About one year previous to the date of her visit she had observed her menses to be somewhat profuse, and also the time of their appearance to be somewhat irregular. This state of things existed until about three months prior to the time she presented herself for treatment, when the hemorrhage during her monthly periods became even greater; besides, more or less hemorrhage, excepting when she confined herself to bed, was practically constant. According to her own story, which I had no reason to discredit, the total amount of blood she had already lost must have been very considerable, and yet she was not thin in flesh, but, on the contrary, really plump. The treatment above indicated was continued for at least four weeks, and having found the symptoms only slightly improved, it was decided to make an uterine examination, which revealed the following: The posterior lip of the os uteri was considerably everted, thus strongly stimulating a lacerated cervix; it, however, was at the same time observed to be greatly elongated, as well as greatly infiltrated. Upon making firm external pressure on the fundus of the organ by my left hand, I was, with the forefinger of the right hand, able to distinctly trace the outline of a new growth slightly projecting from the posterior wall into the cavity of the uterus, which growth was similar in shape, and not exceeding in size, the half of a duck's egg longitudinally divided. The diagnosis, based upon the conditions related, of fibroid tumor, chiefly submucous, but, owing to the peculiar condition of the os already described, to some extent interstitial, was made. It might be questioned whether a lacerated cervix did not previously exist; but when it is recollected that for the past fifteen years she had not been pregnant, and that during the long interval between her last pregnancy and the onset of her last illness she had enjoyed excellent health, its presence may be doubted. With the view of decreasing the size of, as well as the amonnt of bleeding from, the growth, the same remedies in somewhat fuller doses were employed. A solution of tannic acid and glycerine was likewise semi-weekly topically applied. The patient was kept indoors and advised to spend half the day in bed. From this treatment more favorable results were obtained, the size of the growth gradually diminished, and the hemorrhage, for the most *part*, ceased. She also felt herself growing stronger. The same line of treatment was persevered in until November 23d, a period of nearly two months, and it should be noted that no symptoms, such as coolness of the extremities, etc., indicating the full physiological effect of the ergot, had up to this time been observed.

On the morning of November 22d her condition was apparently very encouraging. The tumor was about half its original size. Neither was there then, nor had there been for a fortnight, any uterine hemorrhage, and the patient had again been allowed to move into the open air. November 23d marked an unfortunate epoch in her case. She was on that day seized with violent pains, which, doubtless, were due to uterine contractions; both ergot and quinine were at once replaced by morphia and bromide of potassium in combination. The following morning, November 24th, found her somewhat relieved, but at intervals of a few minutes still suffering great pain. An examination of the tumor plainly showed that the lower portion of it had already undergone softening, and from it escaped a small amount of serous fluid, having a marked odor. At the same time it was equally clear that it had, from some cause or other, become inflamed, being both hot and tender to the touch, and the general signs, elevation of temperature, etc., evidencing the same view. Within the next twenty-four hours she fell into a marked chill, followed by a still greater rise of bodily heat, the thermometer indicating a temperature of 102° Fahr. The abdominal signs consisted of pain on palpitation over the uterus and slight tenderness on either side of this organ, the latter symptom pointing to the presence of local peritonitis. The forcing down pains were controlled by the free use of opiates. During the month following the first, not less than half a dozen chills, which, however, were less severe, occurred, and in the same interval of time the temperature was found to range from 99 to 101.5° Fahr. So far as could be ascertained by digital exploration, the condition of the tumor remained unchanged, excepting that portion of the fibroma which had previously softened, this being found to be gradually disintegrating and draining away. After January 1st, 1885, gradual improvement, both in the general and local symptoms, set in, and at the end of another month the temperature had returned to the normal, the local abdominal signs had almost entirely disappeared, and the discharge had virtually ceased. Simultaneously with the progress of this happy improvement, she had also, in some measure, regained her former strength and flesh, and in consequence of her repeated entreaties to be allowed to sit up, this privilege was granted; but after the second trial the former symptoms of inflammation again appeared, the temperature rapidly rising to 101.5° Fahr., the local signs of pain and tenderness on palpitation as well as the serous-like discharge also recurring. Added to this the stomach would now, at times, reject alike food and medicines. Her disease, during the next three weeks, did not show the slightest improvement, but, on the other hand, she grew weaker and notably emaciated. While in this condition, on February 28th, Dr. B. F. Baer was called as consultant. He advised that, should the symptoms of inflammation subside, and should sufficient strength return to admit of it, a curette be employed, with a view to remove as much as practicable of the morbid growth, which, on account of being to some extent interstitial, was not totally removable. The hope of being enabled to operate was not strengthened by the results of subsequent treatment, which did not appear to benefit her condition in the least. About April 1st she began to be troubled with diarrhœa, which proved to be extremely obstinate, and within a fortnight from its onset partook in great part of the character of dysentery, as shown by the following facts, namely: the stools, besides liquid fæces, consisted of mucus, occasionally tinged with blood, and there was present an almost constant desire to go to stool. In a few days that portion of the abdomen corresponding to the descending colon and rectum became sensitive to the touch, and about the same time the entire abdomen became tympanitic and somewhat swollen. Owing to the fact that her previous disease had already placed her life in great peril, this new complication was looked upon as alarming in the extreme, and Dr. L. Starr was requested to see the patient in consultation. In the back yard of the patient's dwelling was located a cesspool, and from it emanated repugnant odors, which could, on warm days when the doors and windows were thrown open, be readily perceived by the senses throughout the dwelling. Dr. Starr gave it as his opinion that these noxious gases were, perhaps, instrumental in maintaining the bowel difficulty. In the light of the gross character of the lesions found in the intestines at the autopsy subsequently made, this hypothesis could hardly have been tenable. Although the symptoms just narrated, due to the development of the bowel lesions, varied somewhat in intensity, yet they continued up to the time of her decease, which occurred May 1st. In view of the fact that the treatment during the later stages of the embraced nothing of special interest, it is not deemed necessary to give an account of it. Forty-eight hours after death an autopsy was made, Dr. Geo. B. Miller assisting. The peritoneum presented evidences of chronic inflammation, and there was a small amount of exuditional matter in its cavity. In size, the womb was about normal, and with the exception of the lower half of the posterior wall of the body, and the posterior lip of the os, it was normal in appearance. This portion was occupied by the new growth, which was found to be partly interstitial and forming a slight protuberance projecting into the uterine cavity. Its consistence was about the same as that of the sound uterine tissue, and it was reduced to less than half its original dimensions. In the pelvic cavity surrounding the uterus not less than five ounces of pus were found. The stomach and small intestines showed nothing abnormal, while the descending colon and rectum were notably diseased. It is no exaggeration to say that the walls of this portion of the large intestine were thrice their natural thickness, all the coats being distinctly affected. The serous surface was congested, and dusky red in color. The mucous membrane was found to be greatly thickened, and presented almost throughout a color much darker than that of the healthy bowel, while in spots it appeared to be really gangrenous. The liver and kidneys were not diseased looking. The thoracic organs were not examined. Unfortunately, the friends of the deceased did not allow us to retain a specimen of the diseased intestines for purposes of further examination. The only specimen we were able to obtain was a small part of that portion of the new growth which protruded into the cavity of the womb, this, as correctly argued by the husband, not really belonging to the body of the deceased.

A microscopical examination of the growth was made by Dr. H. F. Formad, who kindly furnished a statement of the results obtained. He writes: "I made sections of the fragments of new growth you sent me, and find that they show the structure of *Fibroma*, evidently developed from the uterus, as it incorporates some smooth muscular tissue. The latter, however, did not take any active part in the formation of the tumor proper, which is nearly exclusively made up of areolar connective tissue."

Though there is not the slightest reason to question the correctness of the doctor's conclusions, yet his results do not afford conclusive evidence to the effect that the growth was not to some extent interstitial, since the specimens examined were taken from the portion projecting into the cavity of the uterus, and not from the wall of the uterus or the os underlying the protuberance formed by the fibroma.

From the extensive character of the morbid changes exhibited by the descending colon and rectum, together with their peculiar nature, it is unquestionable that during life we had to deal with a condition which Cullen has termed phlegmonous enteritis. All medical authors agree that in this affection constipation forms a prominent symptom, though in the present case this symptom, it will be remembered, was replaced by diarrhœa associated with dysentery. The location of the disease may in this instance afford a satisfactory explanation of the fact that, in the place of constipation, diarrhœa existed. The disease of the intestine was doubtless caused by extension either from the peritoneal inflammation or the cellulitis, and although the noxious gases arising from the cesspool situated in the yard to the leeward of the dwelling may have exercised some influence upon the symptom of diarrhœa, they could not, in the light of the facts already put forward as the result of the autopsy, be reasonably regarded as causative agencies.

The fact that necrosis of the tumor set in after the condition of the patient had already greatly improved, is worthy of special mention. Whether in this case the death of a part of the tumor was due to the influence of the prolonged use of the ergot (nearly three months), or to any one of the various hypotheses from time to time brought forward to explain the nature of the process of disintegration which these tumors not unfrequently undergo, can not, perhaps, be clearly determined. The query, however, whether ergot, through its peculiar action upon the uterine fibre, is capable of producing death of a fibroid growth when similarly situated, is one meriting attention on the part of the practicing physician, but space forbids its discussion here. A question of still greater moment here naturally arises, namely, what is the proper line of treatment to pursue in cases of like kind? No one, perhaps, will dispute the opinion that operative interference would, at any period after the development of the metritis, with its long train of complications, have hastened the fatal issue. The point here raised being one of the most difficult in the whole domain of gynecology, its further discussion is cheerfully left to the expert on diseases of women. As bearing upon the treatment of the case here narrated, it remains to be said that up to the date of the occurrence of the accident which finally carried off the patient, the encouraging progress of the case seemed to justify the expectation that a practical cure would, without surgical aid, eventually be attained.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy, Cincinnati, Ohio.

CATARRHAL PHTHISIS, HÆMOPTISIS AND CHRONIC BRONCHITIS; THEIR TREATMENT BY TERPINE.

In a communication to the Academy of Medicine, Paris, reciting the results of his researches on the use of terpine, the active principle of different terebinthines, in the affections above mentioned, the author, Prof. Germain See, sums up as follows:

Terpine is a most energetic modifier of the respiratory mucous membrane, and has a powerful anti-secretory effect.

1st. It rapidly diminishes and puts an end to the purulent expectoration in the catarrhal forms of phthisis. Whether the muco-purulent secretion comes from the bronchi irritated by tubercles, or from the parietes of pulmonary cavities, whether the malady be at its outset or in the phase of purulent, or even at the period when cavities have already formed, the terpine will always be indicated when the formation of pus is sufficiently abundant to fatigue the patient, or to exhaust his vital energies and to cause wasting.

2d. It can be employed with success in the hæmoptisis of commencing tuberculosis, that is to say, before the malady has reached the stage of development of cavities with aneurisms of the pulmonary artery.

3d. In the treatment of pulmonary catarrh, of chronic bronchitis independent of asthma, and in which the dyspnœa that may appear is simply due to overloading of the bronchi, terpine constitutes one of the best means to diminish the bronchial hypersecretion.

4th. Its action, which is prompt, sure, and exempt from any physiological inconveniences, should cause it to be preferred to the preparations of turpentine, tar, or of the needles of the fir tree, because the essence of turpentine, no matter how little they may contain, is not well tolerated. By its perfect inocuousness and easy digestibility, it is superior even to creosote.

5th. The best forms for administration of the remedy are either pills, or alcoholic solutions, and the best dose is that of 1 gramme (=15 grs.).

6th. In nervous asthma, emphysematous or catarrhal, which must be distinguished from primitive catarrh, iodine and pyridine have an incontestable superiority.—(*Scalpel Union Med. d. Canada.*)

THE TREATMENT OF ACUTE NEPHRITIS.—BY AUFRECHT.

In conformity with his views of the anatomical nature of acute nephritis, Aufrecht prohibits the use of diuretics and diaphoretics, and recommends the greatest reserve in the use of any medicine in general; at the most, after a few weeks he combats the anæmia by the administration of iron. The rule for all intervention is based upon this principle, that the functions of the sick epithelium shall be so managed as to greatly reduce their work of alimentary extractive substances. Consequently at the outset, with absolute rest in bed, the patient will be allowed but a minimum of nitrogenous food; the easily digested vegetables are much more preferable; milk and soup must not be allowed before the expiration of two weeks.

In support of this practice, Aufrecht reports the case of an infant attacked with acute nephritis, consecutive to scarlatina, cured after an aneuria lasting over eighty hours, by means of the above mentioned alimentary diet; the child had taken no medicine but a little opium.—(*Lyon Medical, Union Med., Canada.*)

PARENCHEMATOUS INJECTION OF ARSENIC IN SPLENIC LEUCÆMIA.
—BY PEIPER.

Taking into consideration the results obtained by Mosler from the injections of arsenic into the parenchyma of the spleen of malarious patients, Peiper conceived the idea of following the same practice in a case of splenic leucæmia in a man aged thirty-three years; the proportion of white globules to the red being as two to three; the spleen very voluminous and resistant. After having duly prepared his patient by means of appropriate treatment, he made in the course of eight weeks ten injections of a solution of Fowler's Solution. These injections were well borne; the spleen immediately underwent a notable reduction, and continued the following months. The author believes that this treatment is well adopted for analogous cases, but especially where the following conditions present themselves: A resistant spleen; no tendency to hemorrhage; a satisfactory condition of the general system; a preceding use of splenic remedies. Immediately after the injection, a local application of ice.—(*Lyon Medical*, *Union Med.*, *Canada.*)

LACTATION AND MEDICINES.

Fehling has investigated the passage of certain medicinal agents from the nurse to the child by means of lactation.

If 2 grammes (=30 grs.) of salicylate of soda be given to the nurse, this substance will be readily discovered in the urine of the young infant. The passage is especially easy if the medicine be taken two hours before suckling.

Iodide of potassium comports itself like the salicylate of soda.

Iodoform even in the smallest quantity passes into the milk. A simple pulverization of this agent on the vulva, suffices for it to be found in the mammary secretion.

With corrosive sublimate, however, it is different, which is only discovered in the milk in a quantity too minute to be measured. This is a very important fact, and pleads in favor of antisepsis by means of its mercurial preparations.

The narcotics are without effect on the infant. Never have even the largest doses of opium or chloral hydrate, administered to the nurse, produced any special physiological phenomena in the infant.

The atropine administered to animals does not dilate the pupils of the young suckling, unless the maximum therapeutic dose be passed. And then this is the only difficulty observed.

This study is practically of the greatest interest for guidance in the administration of the agents mentioned.—(*Bulletin de Therap.*, *Union Med. d. Canada.*)

Selections.

New York Academy of Medicine.

DR. PAUL F. MUNDE read a paper on

ELECTRICITY AS A THERAPEUTICAL AGENT IN GYNECOLOGY,

Which was prefaced by a brief reference to the use of this agent in obstetrics, as for controlling post-partum hemorrhage, for influencing the whole period of labor, induction of premature labor, in extra-uterine pregnancy, and for the nausea and vomiting of pregnancy.

His chief object, however, was to discuss the therapeutical application of electricity in gynecology.

The modern text-books on diseases of women casually refer in general terms to the faradic or galvanic current as a measure to be employed for certain diseases, and the manner of using the agent is briefly described in some of the works on electricity, notably in Beard and Rockwell's comprehensive text-book. Among journal articles on this subject which have attracted attention during recent years are chiefly those of Tripier and Apostoli, both of Paris, the former having lauded the value of electricity in uterine displacements ; the latter, in uterine fibroids and pelvic cellulitis. Bayer has but little to say as regards gynecology, and limits his observations almost entirely to obstetrics.

Despite these various articles and the undoubted value of electricity in many of the conditions referred to, it can scarcely be said to have become popular with the mass of the profession, either in obstetrical or gynecological practice.

The range of applicability of electricity in the diseases peculiar to women was quite large enough to make it a valuable adjunct to other methods of treatment, especially as some of these affections were but little amenable to the routine remedies. Thus, the faradic current had been found useful in the various conditions of malnutrition of the sexual organs (arrest or deficiency of development of the uterus and ovaries before puberty or excessive involution after parturition ; amenorrhœa, irregular menstruation) ; deficient contraction of uterus (subinvolution, menorrhagia) ; displacements due to relaxation of ligaments. The galvanic current had been employed with benefit under circumstances where the melting down and absorption of adventitious products was desirable (subinvolution and hyperplasia of uterus, old plastic exudations, and adhesions from pelvic cellulitis and peritonitis, chronic oöphoritis and perioöphoritis pelvic neuralgia, chiefly when due to pressure by exudations; fibroid tumors. And the galvano-cautery had been recommended by some authors for the cure of hyperplasia, fibroid and ovarian tumors). The use of the galvano-cautery did not properly come within the scope of this paper, since the electric current then acted merely in a secondary capacity as a heat-producing factor, the heat and not the galvanic current being the therapeutic agent.

His object was to show that it required no special talent and no prolonged study of the mysteries of electricity, and no complicated or very expensive apparatus to enable the practitioner, *who is competent to correctly diagnosticate his patient's condition, and form therefrom the proper indication,* to employ the electric current *in gynecology* with safety, and in many cases with considerable benefit. In making this statement he spoke from experience; for the many excellent results which he had obtained with electricity during the past twelve years had been gained under precisely such conditions. Probably the electrologists might call the employment of electricity in this manner empiricism. Perhaps they were right, but he could only ask, was not the whole therapeutical use of the agent to some extent empirical? He should judge so, when he learned from practical electricians that it seemed to make little difference whether the current ascends, or descends; or whether the faradic or galvanic current is used, so far as the therapeutical result is concerned, if only the poles be applied in the proper spots, and the current is not too strong.

An experience of over ten years' almost daily use of one or the other of the two varieties of electric batteries had impressed him with several cardinal points of practical importance in the use of these instruments in gynecology.

Firstly, he had found the galvanic current far more generally used than the faradic.

Secondly, a mild, steady, absolutely painless current from a galvanic battery answered every therapeutical purpose, and was in every way preferable to a powerful or interrupted constant current, which caused painful shock or gave positive pain. As a rule, the galvanic current should produce no other sensation in the organs through which it passes than a pleasant tingling sensation in the skin to which the negative pole was applied.

Thirdly, when a constant current caused pain, or even momentarily increased the pain which it was intended to relieve, it was doing harm, and should be either reduced in strength or discontinued.

Fourthly, despite frequent inquiries of electrologists and experiments on his patients, he could never decide that it made any difference, so far as the therapeutical result was concerned, which pole—negative or positive—was placed within the body, if care was only taken not to have the current too strong, and the metal was covered by leather, when the internal electrode was connected with the negative pole.

There was one marked exception to this rule, and that was, in the case it was desired to relieve pain in a certain circumscribed spot; then it was best to place the *positive* pole next to the painful point. Hence, in pelvic exudations with consequent local or reflex neuralgia, he connected the vaginal electrode with the positive pole, and attached the negative cord to the large sponge on the abdomen, sacrum, or hip, as the case might be.

Fifthly, he had always found it a safe plan to begin with a mild current (the galvanic, say four to six cells, the faradic, as much as the patient can bear without discomfort), and gradually increase to the limit, either at one sitting or day by day, and toward the end of each sitting gradually diminish the current before disconnecting the poles.

Sixthly, when internal electrization was to be employed (vaginal, vesical, or rectal), it was always well to introduce the internal electrodes before closing the circuit, and to break the circuit before removing them, since the contact of the metallic electrodes with the sensitive skin at the orifices of the cavities mentioned, while the current was at its height, caused acute pain.

Seventhly, whether benefit would be derived from the electric treatment could not be known for some time, except when the faradic current was used to bring on the menstrual flow, the result then being either immediate or, at least, speedy, after one or several applications.

Eighthly, in order to give permanent relief, in fact, in order to derive any appreciable benefit from galvanism, it must be used often, steadily, and for a long time. Thus, less than two sittings a week was merely waste of time; every other day, or even every day, was much better than less frequently, and the sittings should vary from fifteen to thirty minutes each.

Ninthly, but while relief and freedom from pain might be often achieved by galvanism, a permanent cure, a complete absorption of the exudation, and a restoration of the organ to perfect health in hyperplasia, chronic oöphoritis, cellulitis, and peritonitis, was seldom achieved. But this was unfortunately the case with all other methods of treatment for these obstinate affections, without even the relief afforded by galvanism.

Tenthly, he had seen no bad effects follow the rational and careful use of either form of current. A slight bloody oozing from the uterus after intrauterine electrization might occur, but was of no consequence.

CONDITIONS INDICATING ELECTRIC TREATMENT.

The pathological conditions of the female sexual organs in which electricity would be most likely to prove beneficial, were the following: Deficient development of uterus and ovaries; amenorrhœa; dysmenorrhœa, obstructive and neuralgic; superinvolution; subinvolution (with or without menorrhagia); hyperplasia uteri; chronic ovaritis and salpingitis; chronic cellulitis and perionitis, and lymphangitis; pelvic neuralgia, local and reflex, uterine displacements; erosions of cervix; uterine fibroids; ovarian tumors.

It was not his intention to make more than a passing mention of the tonic effect of the faradic, and the sedative influence of the galvanic, current on the general system in the anæmia so frequently accompanying utero-pelvic disease.

The auther of the paper then discussed at length the use of this remedy in the above affections, and then gave the following *counter-indication*, that the rule to avoid it in all cases of acute or subacute inflammation of the pelvic organs about covered the ground, although there might be exceptions to that rule in instances of mild subacute cellulitis and ovaritis.

The conditions in which the two varieties of the electrical current act most beneficially were summarized as follows:

Faradism.—Deficient development of uterus and ovaries; amenorrhœa; subinvolution and menorrhagia; superinvolution; uterine displacements, and uterine fibroids (interstitial).

Galvanism.—Hyperplasia uteri; chronic ovaritis and pachy-salpingitis; chronic cellulitis and peritonitis, and lymphadenitis; pelvic neuralgia, local and reflex; dysmenorrhœa, neuralgic and obstructive; erosions of cervix; subinvolution, and uterine fibroids (subperitoneal).

The conclusions to be drawn from the experience detailed in the paper, were the following:

1. Electricity locally applied was a valuable agent in gynecological practice, and should be more widely used than it was.

2. It did not require special knowledge or experience as an electrologist to be able to use the agent safely and beneficially in gynecological practice.

3. The remedy, if properly used and on correct indications, could not do harm.

4. It should be used only in chronic conditions, and if it was the galvanic current, should give no pain.

5. The conditions in which the faradic current was indicated, were chiefly those characterized by deficient development or want of tone of the sexual organs, such as imperfect development of uterus and ovaries, superinvolutions, subinvolution, amenorrhœa, uterine displacements, interstitial fibroids. The object of the faradic current was to stimulate the organs to increased growth or activity, and to produce muscular contraction.

6. The conditions in which the galvanic current was indicated were those in which it was desired to promote absorption of adventitious products, chiefly the result of previous inflammation; to allay pain, to excite reparative action, and occasionally to act as a caustic. The rapidly interrupted galvanic current, however, also excited muscular contraction.

7. Perseverance in the treatment was essential to success.

8. Acute and subacute inflammatory conditions, as a rule, counter-indicated local treatment by electricity.

9. The pathological conditions in which electricity proved useful, were such as those in which other treatment often failed or could not be borne by the patient.

10. In organic diseases a permanent cure, or a restoration of the diseased organs to perfect health, could usually not be accomplished by electricity, but great relief from pain, and certainly temporary improvement in otherwise intractable cases could be achieved by it, without danger and with comparatively little discomfort to the patient.

Dr. John N. Freeman, of Brooklyn, on invitation, opened the discussion, and said that in nearly every particular Dr. Mundé's paper coincided with his experience. He began the use of electricity with the faradic current, twenty years ago, and at that time almost entirely empirically, yet with valuable results in many gynecological cases, and often with disappointment.

Sixteen years ago his old dyspepsia began to be attended by attacks of severe gastralgia, and for the relief of the distressing pain he began, at the suggestion of the late Dr. Geo. M. Beard, the use of electricity, first with the faradic, without much benefit, and then with the galvanic current, and was completely cured. Since that time he had used the galvanic current almost entirely, until he began the use of *static* electricity, with which he had obtained very satisfactory results in gynecological practice. He now employed static electricity in about the proportion of forty to one of all other varieties, and one special advantage was that it could be applied through the clothing.

A special benefit attending the use of electricity was the relief from pain which it afforded, thus obviating the use of opium. For example, gynecological manipulations involving the endometrium were frequently followed by intense pain, but this could be quickly relieved by the application of static electricity.

With regard to electricity in the treatment of fibroids, he had seen the patient referred to by Dr. Mundé very recently, and ascertained that the tumor had not given her any trouble whatever since treatment by electrolysis.

The Treatment of Acute Rheumatism.

Prof. Pepper, in a clinical lecture on Acute Rheumatism, concluded with the following remarks upon treatment:—

In regard to remedies. If the tongue is heavily coated, urine very dark, bowels constipated, and anorexia or even nausea present, we should give a short course of calomel and soda. This should be continued for a couple of days, until the bowels have been moved once or twice. If this is not called for, the patient should at once be put on full doses of salicylic acid or salicylate of sodium. Ten grains every three hours during the day and night would represent about the average quantity (sixty to ninety grains in the twenty-four hours). If the fever were high and the symptoms violent, we should give twelve or fifteen grains every three hours. This treatment should be continued three or four days, and if it is to do good it will do it in that time. Some cases will not yield to it, but in many instances it acts like a charm, and the value of this remedy in acute inflammatory rheumatism is positively established. It is not a specific and not universally valuable, but it does relieve a considerable proportion of cases far more rapidly than any other drug. If, before its administration, we place the digestive tract in a good condition, the proportion of cases in which it does good will be further increased. In the present case salicylic acid acted very nicely. The drug rarely does any harm. If it should irritate the stomach, it must be stopped.

If the salicylate has been given for several days and the fever does not subside, the pain does not pass away, and the joint inflammation is not improved, we should stop it; for, if continued, it is more apt to irritate the stomach and depress the patient than do other alkalies, and under these circumstances it is only doing the work of an alkali. We should then change to the bicarbonate or acetate of potassium, giving these in such doses and with such frequency as are indicated by the condition of the urine and the state of the stomach. Five grains of the bicarbonate with ten grains of the acetate of potassium may be given in water every three hours, and continued until the urine is more copious, lighter colored, and neutral. If a reasonable course of this treatment, continued for a week or ten days, does not cause a subsidence of the rheumatic symptoms, I abandon specific treatment and direct attention to the condition of the patient, giving quinine, strychnine, nitro-hydrochloric acid, and pepsin, to render primary assimilation as vigorous and perfect as possible. If we know anything about rheumatism, we know that it is connected with weakening of the power of assimilation. There is produced some irritative matter which, entering the system, produces these symptoms. If the derangement is so serious that the remedies I have recommended do not enable the system to react and throw off the disease, I abandon them and administer nerve and digestive tonics to improve the condition of primary assimilation. I have secured excellent results by this change of treatment in cases where, week after week, the salicylic acid and alkaline treatments have been pursued without positive benefit.

During this treatment the patient must be relieved of pain and enabled to sleep. Opium is the only drug which positively effects this. It is to be given in such doses as the state of the stomach and the intensity of the pain indicate. Very often a small hypodermic injection of morphia gives a longer and more complete relief from pain than opium by the mouth. Suppositories of opium may be used with advantage, as they do not injure the stomach. In many cases ten grains of Dover's powder will exert a relaxing, tranquillizing and sedative effect, which is exceedingly happy. If the case proves at all obstinate, we should never use the hypodermic injections, from the dread that the patient may become addicted to their employment. I never resort to hypodermic medication for the relief of pain except in the crises of acute disease, and I disguise the form of opium so that the patient may not be able to trace the relief of pain to any special drug. Subacute rheumatism is one of the affections which I have known frequently to lead to the opium habit.

We now come to local treatment. Of late years I have always begun the treatment of rheumatism with the application of a blister to the præcordia, allowing it to remain seven hours, following it with a poultice, and dressing with a simple unguent. I do this, in the first place, as a preventive measure; and, secondly, I think that I have noticed that it modified the general symptoms. I think that I have seen amelioration of the symptoms follow the application of a blister to the præcordia, even when there was no recognizable affection of the heart. I also apply small blisters, one inch by a half inch, over the affected joints, applying them to the different joints in succession. I also apply chloroform-liniment, and cover the part with oiled silk. If I do not use blisters, I rub an ointment of veratrine and iodine of mercury over the inflamed joint. The ointment may consist of thirty grains of veratrine and forty grains of the protiodide of mercury to the ounce of cosmoline.

If endocarditis appears in the course of rheumatism, I abandon whatever treatment I may be employing and again apply a blister to the præcordia, if that is not still sore. Internally I administer calomel, opium, and digitalis. When I have given as much calomel as I think proper, I substitute iodide of potassium and digitalis. The relief of the cardiac inflammation and the preservation of the integrity of the heart are of vastly greater consequence than the mere control of the joint-trouble; in fact, the patient has to remain quiet so long, until the heart has entirely recovered, that it makes little difference whether or not the joint remains inflamed a few weeks longer.—*Med. Times.*

Quack Nostrums.

Of making quack nostrums, as Solomon said of books, there is no end, each day bringing out some new remedy, which, singularly enough, as it is claimed, will take the place and perform the functions of all others which have preceded it. Of course, we do not mean to intimate that all these things are valueless, but, yet, human credulity is so strong, that some unscrupulous person, trading on the fears of hypochondriacs or sickly people, only needs, as the late lamented Mr. Spoopendyke would have said, a bunch of weeds and a gallon of water to be a wholesale drug store. Among the things which appeal most strongly to this weakness are bitters. The very name is in their favor. The mode of life of the average American is of such a character that he is constantly in need of a tonic. He is rushed at his business, swallows his meals hastily and without any thought as to the capacity of his stomach for digestion, takes little rest and necessarily feels hipped, is subject to headache, and takes often a gloomy view of things generally. In such cases he resorts to bitters, under the delusion that they will act on the secretions of the stomach and give the system new strength and energy. Men with active brains, whose professions compel them to lead sedentary lives, also long for a tonic. They may be opposed to the use of what are popularly called stimulants, meaning fermented liquors, and so they lay the flattering unction to their souls that a wineglassful of some bitter decoction will steady their nerves, supply their brains with gray matter and exhilarate them without after-depressing. A little thought would show them under what a fallacy they are laboring. The writer recently purchased samples of four of the most widely advertised bitters in the market, and the simple chemical analyses to which they were subjected showed that they contained about thirty per cent. (the amount the government allows) of the most poisonous and adulterated alcohol, and that the residuum consisted of various foreign substances, which were simply added as flavoring extracts to disguise the taste of the original compound. The poorer the grade of the alcohol the more vicious is the compound. The value which such so-called bitters are supposed to have, is of a purely fictitious character. In fact, in time they will irritate and injure the delicate membrane of the stomach, and so vitiate the taste, that the palate soon can not distinguish between good and bad. It is neither a natural nor a healthy excitement which is produced by these so-called aids to digestion, and the wonder is that the sensible people, who know a little at least as to the operation of natural laws, should allow themselves to be so misled as to what the system really needs. These decoctions are consumed principally by the debilitated, the convalescent, the depressed, and particularly by aged people and weak women, and others to whom a stimulant is indispensable. Now, while alcohol, especially in the form of whisky, is acknowledged to be the best known stimulant, and is prescribed and used for this purpose by physicians everywhere, we can not conceive why people will insist upon taking this whisky in the form of a decoction, the compounding of which they know nothing, and which, as shown by analysis, contains poisons of the most deadly kind. It would be far better for them to come out boldly and use the pure article, something made from malt, which combines both food and stimulative qualities.

Irregular Sexual Development.

Two recent studies in our German exchanges give much food for reflection to the physiologist and the social philosopher.

One of these is by Dr. Geigel, and has for title, "The Variability in the Development of the Sexual Organs in the Human Species." The other is an opinion by Dr. Scholtz, of Bremen, in the case of a middle-aged man, who had long been subject to abnormal sexual desires.

Dr. Geigel has once more subjected the growth of the fœtus in utero to a careful study, with the view of ascertaining what it is that decides on the sexuality of the child. His results are in certain respects negative. His conclusion is that there is no room for a simply mechanical explanation of the fact of sex. He says: "We must content ourselves with saying that in every embryo there is an inherent tendency, the plus or minus of which decides its sexual evolution."

But there is one new fact which he brings out strongly, and that is the slow and imperfect manner in which in some cases both the sexual organs and their correlated sentiments are developed, not only in the fœtus, but in after life. "The whole term of life," he remarks, "is often insufficient to develop the sexual contrasts which theory demands." Some men remain largely women, some women largely men, their whole life through. There is an emotional and intellectual hermaphroditism where there is no physical one.

At this point we may turn to Dr. Scholtz. In his specialty of medical jurisprudence he explains the perversity of the sexual instincts in certain cases by this undeveloped sexuality. "My observations have convinced me," he writes, "that in such cases the crime of pederasty is not merely a disgusting habit, or the refinement of debauchees, but a congenital abnormality of the sexual instinct; an abnormality which very often is revealed in a general physical condition approaching that of the female type."

Such cases he would consider as of inborn mental alienation, and thinks their proper place is in the wards of a hospital, or under medical surveillance, rather than in the criminal dock.

Doubtless, their scientific aspect is such as he describes. But the social economist may well inquire whether a criminal punishment even in such cases is not better, as the fear of it will serve to stimulate the weak will power of the feeble-minded, and will also be more of a terror to the deliberately perverse. For ourselves, we think it would be better, here as elsewhere, to punish the insane than to afford the sane an excuse to escape the proper chastisement for their crimes.—*Medical and Surgical Reporter.*

Formulæ.

GILLFORD'S SOLUTION BROMIDE OF ARSENIC.

Take of—

Arsenious acid	gr. 60
Carbonate of potassium	gr. 60
Bromine	fl. dr. 2
Water	q. s.

Mix.

The carbonate of potassium and arsenious acid with four ounces of water are made into a solution by aid of heat;

when cold the solution is made up to twenty ounces, and to this the bromine is added.—*Pharmaceutical Record.*

This is one of the best solutions of bromide of arsenic used in diabetes melitus. The dose is from two to ten or twelve drops in a little water, to be taken after each meal. We have used this preparation in a number of cases with wonderful results. Of course, the diet must be regulated according to rule.—*Physicians' and Surgeons' Investigator.*

WARBURG'S TINCTURE.

The following is said to be Dr. Warburg's own formula, first published in 1875: Take of—

Socotrine aloes	lb.	1
Rhubarb (East Indian)	oz.	4
Angelica seed	"	4
Confect. of damocratis	"	4
Saffron	"	2
Fennel seed	"	2
Prepared chalk	"	2
Gentian	"	1
Zodoria	"	1
Cubeb	"	1
Myrrh	"	1
Camphor	"	1
White agaric	"	1

Mix.

These ingredients are to be digested with 500 ounces of proof spirit in a water-bath for twelve hours, then expressed, and ten ounces of quinine sulphate added, the mixture be replaced in the water-bath till all the quinine is dissolved. The liquor when cool, is to be filtered, and is then fit for use.

CARBOLATE OF IODINE INHALANT.

The following is said to be similar to Cutler's: Take of—

Compound tincture of iodine	minims	180
Carbolic acid No. 1	minims	48
Glycerin	fl. dr.	1
Water	fl. dr.	5

Mix and expose to the sunlight until the mixture is entirely colorless.

The proportion of carbolic acid and tincture of iodine may be largely increased without a corresponding addition of glycerine.—*National Druggist.*

COMBES' APERIENT

Take of—

Sulphate of magnesium	parts	35
Roasted coffee	"	40
Boiling water	"	500

Mix.—Boil for two minutes, sweeten to taste with white sugar. Dose, one wineglassful in the morning.

FOR FRECKLES.

℞	Hydrarg. perchloridi	gr.	xij
	Sp. rect.	℥	ii
	Aq. dest.	℥	vj

Ft. lotio.

This solution, daubed on to the parts two or three times a day, is very efficacious.

DEPILATORY CAUSTIC.

(Used in British Skin Hospital, London.)

Take of—

Sulphuret of calcium	dr.	1½
Oxide of zinc	dr.	6
Carmine	gr.	1

Mix.—Used as a paste with water.

CLASS-ROOM NOTES.

From the *College and Clinical Record.* In wounds upon the face, Prof. Gross covered the sutures with solution of iodoform ten parts, collodion ninety parts.

Prof. Gross says: When we find heavily coated, furred tongue, give grs. iij calomel, followed by ʒ ij each of Rochelle and Epsom salts.

In gastralgia Prof. Bartholow has often obtained good results from—

℞	Atrophiæ sulph.	gr.	j
	Zinci sulph.	ʒ	ss
	Aquæ destil.	f℥	j

M. Sig.—Three to five drops twice or thrice daily.

The lead water and laudanum solution of Prof. Gross is as follows:

℞	Plumbi acetatis	℈	ij
	Tr. opii.	f℥	ss
	Aquæ	f℥	viij

M. Sig.—Lotion.—*Western Medical Reporter.*

Microscopy.

HINTS IN MICROSCOPICO-HISTOLOGICAL TECHNOLOGY FOR THE STUDENT IN NERVOUS DISEASES. BY DR. EDWARD C. MANN, NEW YORK.—There has been so much done and written by my friend Dr. Thomas E. Satterthwaite, of this city, on this subject, that I shall only give a few general hints, referring the general practitioner to Dr. Satterthwaite's excellent treatise on histology, and to Frey's work on the microscope and microscopic technology. The student generally uses too strong solutions of alcohol for hardening the brain. If a freshly removed brain be put successively into a sixty, seventy, eighty, ninety per cent., and finally to remain in a ninety-five per cent. solution of alcohol, the effect upon the tissues of this gradual hardening will be vastly superior to the rapid hardening and shrinking produced by the careless method of at once immersing nerve tissues in absolute alcohol. Time, patience, perseverance and skill, which will come by practice, will enable most persons to become fairly adept in microscopic technology. In using the microscope, a large, steady tables hould be used, and the student should sit with the light coming in over his shoulder. Work by gaslight is to be deprecated. The technicalities of microscopic work are soon learned, and practice makes perfect, and a few fairly good preparations will, with most, be the incentive to further investigations in microscopy. Something besides the procuring a microscope is necessary in order to use it. The physician must familiarize himself with the entire *technique* of microscopy, and in place, as we have known some to do, of procuring the voluminous literature of the microscope and confusing his mind with the varied directions of authors, each of whom has his pet method of procedure, we advise him to buy Beale and Frey, and put himself under the direction of an experienced microscopist at first, until he is able to stand alone. After this, let him buy as many books on the microscope as he wishes. Another caution I would give is this, avoid the use of high powers at first, until with a weak objective the student understands the structural relation of the part he is studying. Definition is best with low power. My test for a good definition of an objective is the P. Angulatum, which a good one-quarter inch objective should resolve perfectly with oblique light. Cheap and good objectives are hard to get. It is easy to get good high-priced objectives.

The use of eye-pieces and a field not brightly illuminated, give the best results, together with a low power objective at the commencement of any given examination. These points are all simple, but are important to the student in microscopic technology. Another caution for the student, which may save him some good lenses and preparation, is to first get the coarse adjustment by screwing down the microscope tube in its sheath, until the end of the objective is seen to almost touch the cone-glass of the preparation. Then, applying the eye to the eye-piece, slowly screw the tube up until the coarse adjustment is obtained, then obtain the fine adjustment by the screw-head which is placed for the purpose. This is much better than focusing down to the microscopic preparation as many students do, to the great risk both of their objectives (if of high power), and also of any fine preparation they are examining. To make very thin sections from either fresh, or from artificially hardened tissues, the *Le Coultre* razor is the most serviceable instrument, and much better than most "section cutters." The best test of a fine section is the ease with which it floats in a glass of water. Those sections which sink are too thick for mounting as a rule. Specimens to be examined under the microscope may be hardened in alcohol, mullein fluid, solution of one or two per cent. of bichromate of ammonia, and left for at least two weeks; or in chromic acid one to six hundred, and left five to eight days; or in bichromat. of pot. one to two per cent. two to four weeks; also in Clarke's and Beale's mixtures.

For imbedding delicate substances, equal parts of pure white wax and olive oil melted together and kept in the thin metallic covers of wine corks, for this purpose, is excellent. When imbedding, this or a paper case should be used, somewhat larger than the specimen, and the melted wax poured in, and the substance (when the wax commences to solidify at the sides of the case) should be dropped in with a needle beneath the liquid, so as to be covered by it. When the wax is cool put in alcohol.

Staining.—To stain with a weak solution of carmine, we take thirty grains of this substance and rub up with a few drops of distilled water. Then add liquor ammonia fort. ten fluid drachms, and distilled water fifteen ounces. Mix with a glass rod and filter. Keep in stoppered bottle. In staining, take one drop of the above and add to it twelve drops of distilled water, and leave sections which are to be stained from sixteen to twenty-four hours. To stain rapidly, the section may be placed in the above strong solution without the addition of water. In this case the strong solution should be exposed to the air long enough to let the excess of ammonia escape. Accordingly, keep two bottles, one for rapid and the other for gradual staining. The time for rapid staining varies from thirty seconds to five minutes. The sections when removed from the staining solution must be washed in water containing one-quarter per cent. of acetic acid. The student is referred to page 150, of Frey "On the Microscope," for full details as to methods of staining.

The carmine fluid, the Fuchsin, Thiersch's indigo-carmine solution, hæmatoxylin solution, the double staining method with carmine and picric acid, osmic acid, solution of one-quarter to one per cent., and the various metallic impregnations are all good. Satterthwaite, J. W. S. Arnold, Gerlach, Thiersch, Beale, Schultze, Cohnheim, Kölliker, Frey and Tuke have all done beautiful work in microscopic histology, and there is yet much remaining to be done in this most fascinating field of research, especially in the nervous system.

Preservation and Mounting of Specimens.—We have glycerin, Canada balsam, copal varnish, and dammar. The latter I prefer for permanency. After staining and washing the preparation we wish to mount, first place it in absolute alcohol for fifteen minutes. This expels the water. From the alcohol transfer to oil of cloves or turpentine, the superfluous alcohol being first removed by blotting paper. In the oil of cloves the section becomes transparent in a few seconds. Remove the superfluous oil by blotting paper, and the section is then ready. In order to make more secure we place a layer of varnish round the edge of the covering glass a few days after mounting. To make dammar varnish we take gum dammar in powder one-half ounce and dissolve in turpentine one and a half ounce; filter. Then take gum mastic one-half ounce, and dissolve in chloroform two ounces, and filter. Mix the two filtered solutions and again filter, and we have resulting dammar varnish for mounting microscopic preparations. To render sections of spinal cord and nerves beautifully transparent, use a mixture of acetic acid and glycerine, one to three. To render embryonic tissues transparent and hard, use ten drops of solution of caustic soda to each ounce of alcohol. By means of a one per cent. solution of chloride of gold, I have rendered visible the finest primitive nerve fibres of the cornea, and shown their distribution and termination in the epithelium of the cornea. I have also been fortunate not only in making sections, but also in successfully photographing sections of the retina, showing perfectly, first, layer of rods and cones; second, the external granular layer; third, the inter-granular layer; fourth, the internal granular layer; fifth, the fine granular layer; sixth, layer of ganglion cells; seventh, expansion of the optic nerve fibres; ninth, their insertion into the inner limiting membrane, which is, tenth, the membrane limitans interna.—*Medical Bulletin.*

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METHOD FOR SHOWING THE DISTRIBUTION AND TERMINATION OF NERVES IN THE HUMAN LUNGS.—Dr. E. F. Beckwith, aware of the futility of hoping to obtain good results from any known manner of preparation and staining of the nerves of the lungs, sought a new method, and the following modification of a process lately promulgated in Germany for staining brain tissues was found to answer.

Harden fresh lung for about ten days in the following solution: Bichromate of potash 2.5 per cent., to which is added sulphate of copper C. P., to the amount of 0.5 per cent. The tissue is then frozen and suitable sections made, which are treated with gold chloride 0.5 per cent., 2—10 minutes in the dark. Washed with distilled water. Sodium hydrate 1—5, until cleared up. Potassium carbonate 10 per cent., 30—60 minutes dried with absorbent paper. Potassium iodide 10 per cent., 15 minutes, when gold will be nicely reduced.

The nerves and ganglia in sections thus prepared, are of a deep red or violet color, occasionally shading off into a bluish green, the other tissue being red. The differentiation in color is sharp, so that nerve-tissue may be recognized by its color alone whenever seen.

The above method differs very little from the German process, with the exception of the potassium carbonate, which the author believes essential to success, as the unmodified process failed to give good results, when used on lung tissue. A great advantage of the method consists in the fact that the reduction of gold always takes place in a uniformly even manner; and with little practice, perfect staining can be accomplished with every section. Unfortunately, as in other gold preparations, the specimens spoil in a short time, unless preserved in the dark in forty per cent. alcohol, and when examined, should be temporarily mounted in glycerin. —*Royal Microscop. Jour.*

Gleanings.

A Case of Fracture of the Larynx.—In the *Lancet*, May 1885, p. 836, Dr. Berry records a peculiar case of fracture of the larynx occurring in a man aged twenty-one, who was working at a circular saw, when he was suddenly struck in the throat with great force by a large piece of wood coming from below upward. The patient was conveyed to his home five hundred yards distant, and put to bed with his head and shoulders raised, whilst warm fomentations were applied to the throat. Dr. Berry examined the case, and diagnosed a fracture of the larynx, the wings of the thyroid cartilage being separated. The patient being fairly comfortable, it was decided to leave him alone, giving only ice by the mouth. At 1:30 A. M. the next morning, however, urgent dyspnœa came on; when Dr. Berry arrived, he found him unconscious, and at once performed laryngotomy, but no air entered the lungs, and death soon took place. The condition of the parts was examined through the operation-wound; it was found that, besides the separation of the wings of the thyroid, there were oblique lines of fracture through the wings themselves. Within easy reach of the finger, hanging down the trachea by a mere shred of fibrous tissue, was a part of the left wing of the thyroid cartilage, which had most likely acted as a valve and prevented inspiration.—*London Medical Record.*

The Treatment of Simple Acute Diarrhea.—Dr. J. K. Spender (*Brit. Med. Jour.*) refers to a formula published by Dr. David Young, of Florence, in the *Practitioner* for March, 1875—about two minims of castor-oil were combined with three or four minims of the *British Pharmacopeia* solution of hydrochlorate of morphine, and rubbed into an emulsion with gum arabic. To this were added spirit of chloroform and a little syrup. This dose was to be repeated every hour or every two hours, according to the urgency of the case. If the diarrhea was chronic, the quantity of castor-oil was increased; if there was much pain, more morphine was prescribed. He has found Young's mixture extremely valuable in nearly all forms of sudden and acute diarrhea, such as are often seen during August and September, and scarcely less useful in some chronic conditions of irritable bowel which have baffled the so-called routine remedies; but he thinks that, when the castor-oil and morphine fail, or do little good after four or five doses, it may even aggravate the malady to continue their use. Warm milk with lime-water is the best food, a mustard poultice may be put over the stomach, and there should be absolute rest in bed.

THE TREATMENT OF WEAKNESS OF THE HEART'S ACTION.—In the course of a recent lecture on "Arterial Atheroma and Cardiac Affections," M. Lancereaux (*Union Med.*) remarked that the treatment of systolic weakness should vary with the nature of the case. When it depends on dilatation of the right heart, recourse should be had especially to purgatives, for digitalis is no longer efficient; and this is readily understood at the autopsy, when the right heart is found with its walls hardened and stiffened, and remains gaping after it has been cut open. When, however, the weakness is due to atheroma of the coronary arteries, even if, at the same time, the heart is a little steatosed and sclerosed, digitalis acts more energetically, and it is of great service to use it in conjunction with other diuretics. The author often uses the following formula: Scammony, squill, digitalis, each fifteen grains. Divide into twenty pills, from four to six of which are to be taken daily—a milk diet being prescribed at the same time.—*New York Med. Jour.*

PROFESSOR BUDIN.—The *Brit. Med. Jour.*, of May 6, states that on May 6 Mr. Lawson Tait performed laparotomy and hepatotomy, at Nice, on Professor Budin, of the faculty of Paris, who has been ill for some two years. His symptoms pointed, from the first, to some abnormal condition of liver, though the precise nature of the trouble remained obscure. About the 1st of May a consultation was held between Professors Tarnier, Brouardel and Bouchardat, and Drs. Bar and Thaon, when it was decided that laparotomy should be performed, and Mr. Tait was asked to go to Nice to do the operation. On cutting into the liver he found a tumor containing a large mass of hydatids, which he successfully removed. A drainage tube was left in the wound. Since the operation Professor Budin has made an uninterrupted recovery.—*Jour. of the Amer. Med. Association.*

Solution of Quinine for Hypodermic Use.—In answer to Dr. J. C., for a formula for a solution of quinine for hypodermic injection, in September number, I send the following formula which appeared in the Philadelphia Medical Times a few years ago. I have frequently used it, and find this in recommendation of it. Solution is permanent for months; causes no undue pain; have not yet seen inflammation or abscess following its use:

Take Quinia sulph.	gr. xx;
Acid Lactic (pura) . .	min. xx;
Aquæ destil. . . .	min. lxxx;

If this does not make a clear solution, add more acid, drop by drop, till sufficient.—*E. Hadley, M. D., in Indiana Medical Journal.*

Twenty-one cases of dysentery in children, reported by Dr. G. L. Magruder, of Washington, were treated with fluid extract of ergot, five to twenty drops four or five times a day. Almost every case immediately responded to treatment, and was either entirely relieved or much improved.—*Va. Med. Reporter.*

Book Notices

A Reference Handbook of the Medical Sciences. Being a Complete and Convenient Work of Reference for Information upon Topics belonging to the entire range of Scientific and Practical Medicine, and Consisting of a Series of Concise Essays and Brief Paragraphs, arranged in the Alphabetical Order of the Topics of which they Treat. Prepared by Writers who are Experts in their Respective Departments. Illustrated by Chromo-lithographs and fine Wood Engravings. Edited by Albert H. Buck, M.D., New York City. Volume I., Large Quarto. Pp. 808. New York: William Wood & Co.; Cincinnati: P. W. Garfield.

Eight volumes will constitute this work when completed, averaging about 1,000 pages each. The first volume is now before us—the remaining ones will follow as rapidly as they can be prepared.

The work, in many respects, resembles an encyclopedia. It is essentially a collection of articles—some brief, others of considerable length—treating of many of the more important topics in regard to which medical men are likely to desire information. As stated upon the title-page, all of the various subjects treated are arranged in alphabetical order, each one having been prepared by a writer known to be especially qualified to do so. For instance, the first article of the work is Aachen (Fr. Aix-la-Chapelle), renowned as a health resort in consequence of its springs. The article was written by Dr. Henry Fleischner, of Yale College, and gives a very full account of the waters, the diseases they are useful in, etc. The next article upon the Abdomen, by Dr. McDonnell, of McGill University, Canada, occupies thirteen pages, or twenty-six columns, and is illustrated by twenty-one cuts, exhibiting the liver, pancreas, portal-vein, horizontal section through the body on a level with the umbilicus, etc.

The work to be properly appreciated should be examined. The first volume extends alphabetically from AAC to CAT—the last article being upon *Cataract*, occupying seventeen pages, or thirty-four columns. From the space taken up by it, each page being of large quarto size, in solid brevier type, it will be perceived that the subject of Cataract is very thoroughly treated—much more so than it is in a text-book upon surgery.

The work when completed will form a treatise, except as regards arrangement and classification, upon medicine, surgery, obstetrics and gynecology, and the departments collateral to them, as anatomy, materia-medica and therapeutics, physiology, pathology, etc. The volumes will constitute a storehouse of medical knowledge. There will scarcely be a topic in medicine or surgery, of any importance, that a physician will not be able to immediately turn to it in its alphabetical order, and learn in full detail everything concerning it.

Besides several colored plates, the first volume contains a great many woodcuts.

EPILEPSY AND OTHER CHRONIC CONVULSIVE DISEASES: THEIR CAUSES, SYMPTOMS AND TREATMENT. By W. R. Gowers, M. D., F. R. C. P., Assistant Professor of Clinical Medicine in University College; Physician to the National Hospital for the Paralyzed and Epileptic. 8vo.

Pp. 255. New York: William Wood & Co.; Cincinnati: P. W. Garfield.

This work constitutes the September number of "Wood's Library of Standard Medical Authors."

The object of this work, as stated in the preface, is to describe and illustrate the clinical history of epilepsy and other allied convulsive diseases by the help of the material furnished by a series of cases which have been under the author's care, chiefly at the National Hospital for the Paralyzed and Epileptic. While many of the conclusions which are given are the same which others have published, others are original with the author.

Epilepsy has always been an obscure disease as regards many of its prominent features. In ancient times the obscurity which involved it caused its attacks to be looked upon with superstitious awe, and to be ascribed to the devil. Not the ignorant merely, but the more intelligent, 2,000 years ago, thought it could not be otherwise than that it was a force within one, but not a part of him, that caused him to utter a cry, fall down, froth at the mouth, beat his head against the ground, and throw his arms and legs about, etc. "The nerves," "nervous system," and its phenomena—reflex action, etc.—were but little known, and how else, under the circumstances, could such operations be accounted for than to ascribe them to the mystic power of evil spirits? While our advance in knowledge has enabled us to understand that epilepsy is a disease, and that its phenomena are the result of physical causes existing in the individual, yet so much obscurity continues to surround it that it is still regarded as a most interesting affection.

The author considers that the tendency of epilepsy is to self-perpetuation; each attack facilitating the occurrence of another, by increasing the instability of the nerve element. Hence the spontaneous cessation of the disease is an event too rare to be reasonably anticipated in any given case. Convulsive attacks, however, in infancy, continuing after the cause has subsided, sometimes cease spontaneously at four or five years of age. Attacks which have begun before puberty and continued to the time of it, rarely cease after its establishment: and the same may be said in regard to menstruation, although it does not accord with the general belief.

In conclusion, we will state that the work gives a very full exposition of the knowledge, up to the present time, of epilepsy, hystero-epilepsy, and allied convulsive affections. Their history, causes, course, symptoms, pathology, and most approved methods of treatment, are very fully set forth and discussed in a most interesting manner.

POST-MORTEM EXAMINATIONS, WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE. By Professor Rudolph Virchow, of the Berlin Charité Hospital. Translated by T. P. Smith, M. D., Member Royal College of Surgeons of England. With Additional Notes and New Plates. From the Fourth German Edition. 12mo. Pp. 138. Philadelphia: P. Blakiston, Son & Co.; Cincinnati: R. Clarke & Co. Price, $1.00.

A work upon post-mortem examinations by a world-renowned pathologist, like Prof. Rudolph Virchow, needs no commendation. A work by him will be accepted as possessing great merits, in consequence of his known ability and learning. In the case of this little work the inference will be found to be correct on examination.

In this work Virchow gives an account of his early experience as Prosector in the dead-house of the Berlin Charité Hospital. Besides, he criticises, explains, and illustrates the regulations which have been promulgated throughout Germany for the guidance of medical jurists in performing autopsies and drawing up reports.

The comments which Virchow makes upon actual post-mortems made by him, will be found very valuable indeed. Such criticisms enable one to base correct opinions on what is observed in post-mortems.

PRACTICAL SURGERY: INCLUDING SURGICAL DRESSINGS, BANDAGING, FRACTURES, DISLOCATIONS, LIGATURE OF ARTERIES, AMPUTATIONS AND EXCISIONS OF BONES AND JOINTS. By J. Ewing Mears, M. D., Lecturer on Practical Surgery and Demonstrator of Surgery in Jefferson Medical College, Surgeon to St. Mary's Hospital, etc. With 490 Illustrations. 12mo. Pp. 794. Philadelphia: P. Blakiston, Son & Co.; Cincinnati: R. Clarke & Co. Price in cloth, $3.75; sheep, $4.75.

A work upon Surgery of such convenient size as is this one, and sufficiently full in detail to obtain from it a satisfactory knowledge of the leading points, can not help but become popular with students, especially with those who are in attendance upon medical lectures. In the way of text-books it is necessary for the majority of students to be economical. After graduating they have in view forming a library of standard works, of late editions, in the various departments of medicine, and do not expect that the well-worn volumes of their student life will be of any value to them after it is over. They wish, therefore, that the various text-books should cost as little as possible, consistent with adaptability to fulfill their purposes.

The work of Dr. Mears fulfills all the conditions of a text-book upon surgery as fully, it seems to us, as any work can well do, especially as regards low price and the practical points in surgery. Fractures, dislocations, ligature of arteries, excision of joints, etc., are satisfactorily treated and explained. The general practitioner, in fact, can consult the work in all that pertains to surgical art with much satisfaction.

A second edition of the work having been called for, is evidence that it has been favorably received. The second edition has been improved by the addition of new matter and a revision of the original. Many new illustrations have been added, reproduced from the works of Gross, Agnew, Cheyne, Pitcher, Hamilton, etc.

MANUAL OF THE DISEASES OF WOMEN. Being a Concise and Systematic Exposition of the Theory and Practice of Gynecology. For the Use of Students and Practitioners. By Charles H. May, M. D., Late House Physician St. Sinai Hospital, New York. 12mo. Pp. 357. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co.

In the following pages, the author states that he has aimed to give, in as concise a manner as possible, an exposition of the theories and practice of the diseases peculiar to women, which shall represent the accepted views in this modern science.

Medical students will find this work quite adapted to their wants. Also practitioners of medicine will find it exceedingly convenient to consult for the purpose of refreshing their minds upon the leading points of a gynecological subject. So small a work, of course, does not lay claim to being an exhaustive treatise upon gynecology. But by systematic condensation, the omission of disputed questions, and the presentation only of accepted views, it constitutes a very satisfactory exposition of the leading principles, as they are understood at the present time, of gynecology.

Medical students will be assisted by it greatly in reviewing lectures and preparing themselves for quiz classes.

THE PRINCIPLES AND PRACTICE OF SURGERY. By John Ashhurst, Jr., M. D., Professor of Clinical Surgery in the University of Pennsylvania, Senior Surgeon to Children's Hospital, etc. Fourth Edition, Enlarged and Thoroughly Revised, with 597 Illustrations. 8vo. Pp. 1,118. Philadelphia: Lea Brothers & Co.; Cincinnati: R. Clarke & Co.

This highly esteemed work upon surgery has now reached a fourth edition, showing the high esteem in which it is held by the profession. Its merits are too well-known for it to need any commendation on our part. It is sought for by medical students, who regard it as a superior text-book, while general practitioners consider it as peculiarly adapted to their wants. Limited to a single volume, which, although large, is not inconvenient to handle; and the various subjects having been treated with sufficient fullness to afford a satisfactory knowledge of them, no more complete work upon surgery is needed by a practitioner who does not make surgery his specialty.

The present edition has been brought fully abreast of the times, the author having spared no pains to incorporate in it an account of all the important recent observations in surgical science, and such novelties in surgical practice as have seemed to him to be really improvements; and by making such changes as have been suggested to him by enlarged personal experience as a clinical teacher and hospital surgeon. About fifty additional pages have been added, notwithstanding the effort not to increase the size of the volume. The illustrations have been increased by the introduction of a large number of original cuts from photographs of patients, and from drawings by Drs. Nancrede and Taylor.

The author may indeed congratulate himself for having produced so satisfactory a representation of Modern Surgery.

THE MEDICAL NEWS VISITING LIST, 1886. Philadelphia: Lea Brothers & Co.

The Messrs. Lea Brothers & Co., of Philadelphia, the distinguished publishers of medical books, have commenced the publication of a Visiting List, a copy of which we have received from them. It has the usual pages for making memoranda of visits, general memoranda, for recording deaths, births, obstetric engagements, vaccinations, addresses of nurses and patients, cash receipts. There are nearly fifty pages of reading-matter, consisting of a therapeutic table, list of poisons and antidotes, incompatibles, Sylvester's method of artificial respiration, table of doses, etc.

This work, while having many of the features of Visiting Lists generally, has some peculiar to itself. It is substantially and handsomely bound, having pencil and pocket.

THE PHYSICIAN'S POCKET DAY BOOK. Designed by C. Henri Leonard, M. A., M. D. 1886. Bound in Red Morocco, with Flap. Detroit: Dr. C. Henri Leonard. Price, $1.00.

This Visiting List has reached its ninth year. It is good for thirteen months, from the first of any month that it may be begun. It has pages for all the various memoranda belonging to Visiting Lists generally. Not having any reading-matter, it is thin and light, which many regard as a very desirable feature.

THE PHYSICIAN'S VISITING LIST (Lindsay & Blakiston's) for 1886. Thirty-fifth Year of its Publication. Philadelphia: P. Blakiston, Son & Co., successors to Lindsay & Blakiston.

This is the first Visiting List published in this country, having reached its thirty-fifth year. Although the oldest work of its kind, it is not excelled by any for the purposes for which it is designed. It is compact and light, yet possesses all the features needed in a Visiting List. It has a limited amount of reading-matter, in the front, as a List of Poisons and Antidotes, Marshall Hall's Ready Method in Asphyxia, etc.

The Blakistons issue Visiting Lists of different sizes—25 patients weekly, 50 patients weekly, 100 patients weekly—Then they have Interleaved Editions; *i. e.*, a blank leaf following each leaf through a portion of the book.

Editorial.

NOTICE TO SUBSCRIBERS.—On looking over our subscription book we find that not a few of our subscribers are in arrears for the present year. In fact, there are a few who are in arrears for even a longer time than a year. Come, friends, pay up. Our printer has to be paid, and you should afford us the means to do it. While we might not object to contributing our own labor for the benefit of the profession, without compensation, like our brethren who lecture in our medical colleges, yet we must decline paying the printing bills out of our own pocket.

While we are writing, we will mention that we have become wearied of waiting upon subscribers for five or six or more years; for the reason that it not unfrequently happens, after having our patience exhausted by these gentlemen's delay—no attention having been paid to bill after bill sent them—we finally hand the accounts to a collector for collection, we receive word from them "to stop the journal." Of course, we most willingly *stop* it. Why not? But at the same time we do not admire the courtesy of such individuals, who, in return for our waiting upon them for years, seek thus, in return, *to spite* us. If they knew how little they succeeded in *spiting* us, by sending us such orders, and how cheerfully we always comply, we think it would detract a little from their pleasure. Stopping the journal when forced to pay for it, is a very old and worn-out method of spiting publishers, which they have long ago ceased to feel, if they ever did.

CANON FARRAR.—This distinguished literary gentleman and divine gave a couple of lectures recently in Cincinnati at the Odeon. The subject of his first lecture was Dante. On appearing upon the stage he was introduced to the audience by Mr. Wm. M. Ramsay, an attorney of Cincinnati, who spoke as follows:

"It is our privilege to greet and hear to-night one of the foremost men in the intellectual world—one who is distinguished as an orator, an author and a divine; and whose words, whether uttered from the pulpit, the rostrum, or through the instrumentality of the press, have always been words of inspiration, encouragement and wise direction to mankind in his infinite relations. We may congratulate ourselves upon his presence, and upon the fact that he has chosen for his theme this evening the genius and achievement of the author of

> "'That poem of the earth and air,
> That mediæval miracle of song'—

the 'Divine Comedy.' I now have the honor to present Rev. Dr. Farrar."

We quote these remarks of Mr. Ramsay on account of their originality. We feel very sure that, in the making of an introductory address, the same expressions have never been used before. If any of our medical friends in the country know of a village schoolmaster who may be appointed to introduce a lecturer to a village assembly, we would suggest to them to send him this little introductory speech of Mr. Ramsay to commit to memory for the occasion; for, being so entirely new in every respect, it will not occur to any one that he has ever heard it before.

Mr. Whelpley, the manager of the lectures, invited quite a number of gentlemen of wealth to take seats upon the platform while the Rev. Farrar spoke. Among them, we noticed, was a coal oil dealer or so, some railroad men, some liquor merchants, a few preachers, several lawyers, and one physician, etc.

In order to show the Canon how highly he was appreciated, it appeared to be thought necessary to surround him with men of wealth. It did not seem to occur to any one that the smell of coal oil might be offensive to him, or that he might not be pleased with the odor of whisky. Wealth is is what every one admires in this country, and consequently it is supposed that one from across the waters has the same high respect for it. The reverend gentleman, therefore, had a body-guard of rich men about him in Cincinnati. It is probable that not a few of the gentlemen who sat upon the platform had never heard, until the evening of the lecture, that there had ever existed such a person as Dante; or, if they had, it is not improbable they thought he belonged in Ireland. After hearing the learned lecture, it is probable that their minds continued clouded as to whom Dante was.

Very many persons in this country have such admiration of wealth that they can not understand that, although it is considered very nice to have, it does not give high social position in England. In that country noble birth and education are essential for that. Next to the nobility rank members of the learned professions; for to be a physician, a clergyman, or an attorney, implies learning. However rich a retail seller of calico, tapes and muslin may be, he is, nevertheless, in England, only a haberdasher, and a person carrying about upon him the smell of coal oil would not entertain for a moment the thought of gaining admittance into good society. But in our free country learning is thought to be honored by a number of moneyed blockheads and ignoramuses seating themselves on the platform when a man of learning delivers a lecture. It is not any wonder that Englishmen, on returning home, after visiting this country, where they were feasted and carried about to examine wine cellars, and call upon Mr. Soso, who, they are assured, is worth several millions, having been a railroad wrecker, represent our people as uncouth, ignorant, etc. Surrounded by wealthy snobs who assume to be the "higher classes," they do not come in contact with the intelligent men and women and the men of learning of the country.

If Canon Farrar conversed with those about him on the subject of his lecture, he probably found that two-thirds of them had never read Dante. Under such circumstances, what sort of an opinion would he be apt to form in regard to the intelligence and learning of the "better class" of Cincinnati society?

Dr. Farrar beautifully sketched the life of Dante—how unappreciated he was, driven out from his own city, and doomed to spend nineteen years in hopeless wanderings and galling dependence. After he had died and was buried at Ravenna, Florence became conscious of the injustice she had inflicted upon him, and would have had his remains restored to her, but it was denied her, although Leo X. and Michael Angelo joined in the request. Dante warned off from his Divine Comedy all base and feeble readers. What we learn from his great poem, says Dr. Farrar, is its intense moral purpose, and those who do not care for moral purposes, do not care for him. And so we believe that the ordinary haberdasher, whisky-maker, and railroad wrecker, however wealthy he may be, cares nothing for Dante and his Comedy. They never read it, and could not understand it if they would undertake to read it.

GENERAL PRACTITIONERS OF MEDICINE—SPECIALISTS.—Twenty-five or thirty years ago, with the exception of a few oculists in some of the large cities, there were in this country no specialists. In fact, at the time mentioned, the profession was not divided, as in England, into physicians and surgeons—a physician considering that it devolved upon him as much to treat a fracture as to prescribe for a case of pneumonia. But how different now when there are specialists for every class of affections. Specialists not only for diseases of the eye and ear, but specialists for diseases of the throat and nasal passages; for the throat and lungs; heart and lungs. As is well known, there are medical men who treat only diseases of the stomach and liver; who give exclusive attention to affections of the kidneys and bladder; to piles and diseases of the rectum, etc. Besides these we have gynecologists, dermatologists, physicians for venereal diseases, and diseases of children, etc. In surgery we have dentists, orthopœdists, and a score of other specialists.

In fact, the outlook appears as though the general practitioner of medicine had become an individual of the past; that there was now no need of him—all of the ten thousand ailments to which the human being is prone having been classified, and a specialist placed in charge of each one. The community, we find, is getting pretty well educated to this state of affairs; for it is quite common to be told nowadays by a party, who used to apply to us for advice with all of his ailments, that he is being treated by Dr. Cordis, an eminent specialist in thoracic diseases, for a heart affection; also that a Dr. Rectum has him in charge for piles; Dr. Jecur is prescribing for him for disease of the liver; Dr. Ren is dieting him for Bright's disease; and that he is taking phosphorus by the advice of Dr. Cerebrum for a nervous ailment. The chairs in medical colleges have been increased from the old and standard number of seven—anatomy, physiology, chemistry, materia medica and therapeutics, obstetrics, surgery, and principles and practice—to fifteen and twenty. Among them are chairs of ophthalmology, venereal diseases, gynecology, etc. And what is the burthen of the teaching of these special chairs? Do they teach their subjects fully? By no means; for that would be impossible—the specialists having so multiplied the technicalities of their specialties—their distinctions without a difference—that it would require the labor of months to master them in each instance. The burthen of the lectures of the occupant of each special chair is really, under the show of some instruction, to impress upon the minds of students that each one of them should, after he has entered upon practice, send to him, the lecturer, all cases he may meet with that belong to his specialty; for that only a specialist can be competent to treat such diseases.

That specialism has even now been carried to a point that it is time to call a halt, we can demonstrate by a small pamphlet we have received, consisting of a paper recently read before the Connecticut Medical Society by Dr. Wm. C. Wile, one of the editors of the *New England Medical Monthly*, and lately published in that journal. The paper is entitled SURGICAL NOTES FROM THE CASE-BOOK OF A GENERAL PRACTITIONER. It informs us what a general practitioner can do, who, educated in the principles of medicine, has been taught anatomy, physiology, chemistry, materia medica and therapeutics, obstetrics, surgery, principles and practice, and has kept himself posted in the progress of his profession as set forth in the medical journals.

The first case detailed by Dr. Wile, in his paper, is a most severe case of traumatic tetanus following upon a wound on the knee directly over the patella. The convulsions were of the most frightful character the Doctor had ever witnessed. With periods of improvements, lasting for some time, followed by relapses, the disease continued for seven weeks. At one time, from midnight until six o'clock in the morning, the patient had thirty-one consecutive convulsions. The treatment consisted in the free use of chloroform and exceedingly large doses of hydrate chloral. Half-grain doses of morphine, administered in the early stages, had no effect. At this time, the patient had in twenty-four hours from seventy-five to one hundred convulsions. His pulse was 144, and temperature 104°. Chloral was given in doses of sixty grains every two, three, four, or six hours. Besides, when the convulsions would be more than usually difficult to subdue, chloroform would be freely administered. There were occasions when the patient would be free from convulsions, only when under the influence of chloroform. The amount of chloral given during the course of the disease was six ounces and a half; of chloroform, two pounds and a half. The patient made a good recovery finally.

The second case is a report of an operation of herniotomy on an old man seventy-nine years old. The old man had a very large inguinal hernia, which became strangulated through neglect of wearing a truss. Taxis failing to return the intestine, after using an anesthetic, Dr. Wile cut down upon it, severing the adhesions, which were strong and abundant, opened the sac and returned it. Patient made a rapid recovery.

The third case reported is an account of an amputation near the shoulder joint for gangrene following erysipelas. In about a week from the beginning of the attack of erysipelas (the patient was a negro and was in charge of another physician until the amputation) abscesses appeared along the inner and outer surfaces of the arm, forearm and hand. This condition went on from bad to worse, till it involved the whole of the cellular tissue of the arm, forearm and hand. Large abscesses formed over the pectoral muscles, until at the time the Doctor saw him, the arm and side presented the most frightful mass of putrid flesh and decomposed tissue that he had ever seen. After anesthetizing the patient, a double flap operation was performed, amputating one and a half inches below the shoulder-joint. It was with difficulty that a sound cutaneous flap was secured, in consequence of the skin having sloughed away. After severing the limb, the wound was cleaned with a strong solution of carbolic acid (1 to 20). A drainage tube was inserted, and flaps drawn together as well as possible. An incision was made through the connective tissue from the axilla down to the ilium, evacuating quantities of pus. The cavities thus opened were thoroughly cleaned out with a strong solution of carbolic acid, and the wound left to heal from the bottom by granulation.

The fourth case reported is a highly interesting one and is illustrated by some five or six beautiful cuts. It is too long for us to describe it and do justice to it. It is a report of the exsection of the entire shaft of the tibia for necrosis, with reproduction of the bone, followed by recovery.

Following this report is one of a unique case of congenital double talipes, varo equinus, of thirty-three years' standing, for which the Doctor operated, and which resulted in a perfect recovery.

The last case which we will mention is an operation for genu valgum, beautifully illustrated, in the adult, resulting in a cure. The Doctor claims that while the operation for this deformity, attended with successful results, is not unusual during the earlier periods of life, yet he has failed to find a single case recorded of the operation performed in the United States after the age of fifteen years. Nor does he find any record of a case in which the deformity has been removed in America, by the method advocated in his paper. We would be pleased to report this case of knock-knee in full, but our space is too limited.

In conclusion, we will state that we have not taken up these cases of Dr. Wile for review in order to glorify him, for we have never met him and do not have the pleasure of his acquaintance. Our sole purpose in referring to them is to show what a general practitioner of medicine can do if he keeps himself posted in his profession by constant reading of medical journals and has confidence in himself. There is no greater absurdity than that the various human ailments must be divided into classes, and that there must be a doctor for each class. A physician who thoroughly understands the principles of medicine and can treat a case of pneumonia properly, can treat any disease after studying the peculiarities of the affections of the various organs.

Are Physicians and not Attorneys Amenable to the Law?—Several months ago we reported a suit that was brought against Dr. E. Williams and partners, of this city, eminent ophthalmologists, for alleged malpractice. The charge was that they had permitted a small scale of iron that had entered the eye of a boy to remain, by which he eventually became blind—the sound eye becoming affected through sympathy with the injured one, and losing the power of vision. It was proven on the trial that the boy had visited the office of Dr. Williams but a time or so—the first time immediately after the accident, when the injured eye was so swollen and congested as not to permit of an examination—and then ceased calling because he was informed that to preserve the sound eye and be saved from blindness, he must consent to have the eye that had been destroyed removed from its socket, to which his parents would not consent. For several months, after declining the services of Dr. Williams and associates, he spent his time in going the rounds of the specialists of diseases of the eye, putting his case in charge, at different times, of both regular and homœopathic physicians. Every ophthalmologist by whom he was treated informed him that the only way by which he could avoid becoming blind, was to have the injured eye removed. Finally after the sound eye had become affected, he and his friends consented to its removal; but it was then too late—the disease which had been set up in it by sympathy, continued its course after the exciting cause had been removed, and the boy was fated to grope his way through life in darkness, a melancholy victim of advice that proceeded from ignorance.

The boy having become blind through the willfulness and ignorance of his friends, he was instigated by some one to bring suit for damages against Dr. E. Williams and his associates, who had seen the case a time or so at the beginning. The attorney alleged, as we reported when we published an account of the suit, that the blindness had resulted in consequence of the small scale of iron not having been removed when the boy called at the office of Dr. W. Although the defendants proved by every ophthalmologist called to the witness stand—regular and homœopathic—that it was contrary to all recognized rules of practice to search for, with the object of removing it, any foreign body that had penetrated the walls of the eye and passed into its chambers; that the advice that they had given and the services they had rendered were in accordance with recognized principles of practice; and established by the admissions of plaintiff himself that he ceased his visits to their office after calling, if we remember rightly, not more than a couple of times, when he put his case in charge of others—having been treated by six or eight physicians at different times in the course of a few months—yet the jury, instead of promptly acquitting them of the charge of malpractice, *disagreed* and were discharged—a majority, we believe, being in favor of rendering a verdict against them. Besides the heavy expense to which they were put in defending themselves against an unjust charge, they are liable, at any time, to have the suit resumed.

It will be seen by this case that eminent physicians who have rendered gratuitously medical services to the amount of thousands of dollars for the relief of the poor, and pay taxes and discharge all the duties of good citizens, are liable at any time, through the instigation of attorneys, to have drummed up against them prosecutions for alleged malpractice. Some may say that those attorneys who thus seek to blackmail physicians by prompting poor and ignorant people, through appealing to their selfish nature and holding up prospects of realizing large amounts of money, to bring suits against them on charges of malpractice, when there are no foundations for it, are outcasts of the legal profession, lawyers of no character, who receive no recognition from their brethren, but such is not the fact. The legal creatures, whom we have known to perpetrate such outrages, are of good standing among their fraternity. The code of ethics among lawyers, if they acknowledge any ethics at all, permits them to commit any act that is not in violation of the statutes of the State. Who can point out in Hamilton County, O., among its several hundred attorneys, during the last quarter of a century, a single one that has been disbarred for dishonorable and dishonest conduct toward a client? Although there is not a person who can not call to mind numbers of instances that he has known of an attorney's dishonestly keeping a client's money which he had collected for him; grossly neglecting a client's business that had been placed in his hands; packing a jury; suborning witnesses, etc., yet we feel sure that no one can remember of a case of disbarment for any such outrages, or of the passage of any resolutions by a legal society expressing disapproval of such conduct in one of its members. Now and then, in post-prandial speeches and college commencement addresses, there will be mention about maintaining the purity of the bar and the high character of the profession, but nothing is ever observed in acts, on the part of any legal organization, looking to either enforcing purity or high character.

Recently a physician of Cincinnati brought suit against a certain party for damages that he had suffered from him. He employed a firm consisting of two attorneys to attend to his suit. After the lapse of nearly six years from the time action was first begun, the case reached the Supreme Court of the State. The cause was well founded, and there was no doubt that the Supreme Court, on hearing it, would render a verdict in his favor. But to the great astonishment and discomfiture of our friend, the highest court of the State, on opening the papers, discovered that not a single one of them had been signed and certified to as correct by the judge of the inferior court before whom the case was tried at first. Under the circumstances, it seems, the court had nothing to do but to render a verdict against the physician, as he was before it, as it were, without evidence, without anything to sustain his side. The merits of the case, it will be observed, were not examined into, were not passed upon; it was dismissed in favor of the defendants, only for the reason that the plaintiff's attorneys had not complied with the law in obtaining the signature of the judge of the Common Pleas Court to his papers.

What redress has the physician obtained for this gross carelessness of his attorneys? He had expended several hundred dollars, had been harassed by nearly six years of anxiety, had lost much time, and lastly, but which was the chief object of his suit, he suffered the loss of expected damages. Every one would suppose that some redress should be made him ; but we regret to say that he has not only had no redress offered him, nor will any be made unless he compels it after a long, tedious suit, and then he can only recover for what money he may have expended. But we will mention further, besides suffering the losses we have stated, he has several hundred dollars costs to pay—the whole costs from the beginning of the suit to its ending.

But we do not wish to consume further space now with the subject as to whether physicians are amenable to the law while attorneys are not. Whatever theory there may be in regard to it, evidently facts go to prove that, while medical men are liable before the law for heavy damages for any of their mistakes, and are liable to be annoyed and put to great expense when they have made no mistake at all, yet the attorney is not responsible for the grossest errors followed by the most disastrous results to his client. The excuse of the gentlemen of the law in the case of the physician which we have related is, that having prepared the papers for the signature of the Common Pleas judge, and having handed them to him to be signed, when he returned them, supposing they were signed, they did not think it necessary to open the package to examine. They said they regretted "their error" very much ; but, so far, they have declined even to return the money that had been paid them as a retaining fee.

We propose to resume the subject, for we regard it an interesting one to physicians, and we will probably mention some names at a future time. We wish also to have something to say in regard to "honorable" lawyers hiring themselves to assist persons in inflicting gross injustice upon their fellows. The mask of religion should be torn from the members of a profession who justify themselves for perpetrating wrong on the plea that they are under obligations to do all they can for their clients. Attorneys term themselves "officers of the court."

HIS EXPENSES NOT ALLOWED.—It will be remembered that Dr. Billings, of the Surgeon-General's Office in Washington, was one of the Committee appointed by the American Medical Association to invite the *International Medical Congress*, meeting at Copenhagen, to hold its next meeting in this country. We have heard that the Association appropriated money to pay the traveling expenses of the members of the Committee, but it seems that Dr. Billings handed in a bill to the Comptroller of the Treasury for the expenses of his trip, which were paid, charging for many more miles than are generally understood to be between Washington and Copenhagen. Dr. B., as all know, became highly indignant at the action of the Association in New Orleans, for adding additional members to the Committee, by which the little game of the members appointing themselves and a few of their friends to all the chief places of honor, when the Congress would meet here, was spoiled.

We learn by a telegram from Washington that the money that Dr. Billings has received from the U. S. Treasury for hist raveling expenses has been ordered to be charged up to him. The telegram is as follows:

"The Comptroller disallows, in the settlement of the accounts of Paymaster Smith, U. S. A., an item of $1,340.24 for 16,753 miles of travel claimed to have been performed by Surgeon Billings in attending the International Medical Congress in London, in August, 1881, and in traveling elsewhere throughout various countries in Europe under an order from the War Department, of May 13, 1881. Under this order it is claimed that he traveled the number of miles above stated between the 20th of June and the 10th of November, visiting London, Portsmouth, Southampton, Netley, Manchester, Liverpool, Brussels, Bern, Frankfort-on-the-Main, Heidelberg, Strasburg, Kiel, Dresden, Munich, Leipzig, Berlin, Paris, St. Petersburg, Moscow, Helsingfors, Stockholm, Copenhagen, Prague, Vienna, Buda-Pest, Florence, Milan, Edinburgh and Glasgow.

"The Comptroller holds that the War Department had no authority to send a delegate to the International Medical Congress at the Government's expense; that Congress alone could authorize such representation, and that the service was in no proper sense a military service. He also holds that an order of the War Department which leaves it to the discretion of the officer to determine the extent of his travel, is void, and does not authorize the payment of mileage; that the Department must designate in the order the place or places from where, and the point or points to which, the travel is to be performed, and directs that the amount paid in this case shall be charged against Surgeon Billings in his pay account."

Alveloz.—In our last issue we spoke of a case of cancer of the uterus which was being treated in Cincinnati by Alveloz. The physician in attendance reported to us recently that the case was improving, and that the prospects of a final cure continue favorable.

In a recent number of the *Detroit Lancet* it is stated that Dr. Lyons exhibited samples of Alveloz to the Detroit Academy of Medicine. After stating that the milk is prepared from the juice of a species of euphorbia, native of South America, he exhibited a circular accompanying one of the original packages of the milk, which exhibited a specimen of Spanish-English that is worth preserving. This is the way it reads:

THE NATURAL MILH

OR

The Sap of the Alveloz.

THE LIQUID WITHOUT DETERIORATING.

The ALVELOZ, a plant of the euphorbium family that lives in the inland parts of our country is hnown to-day as a true Medecine to destroy the effects of the *noli me tangere* or cancerations. It helps the change of the injured tissues & brings at last a complete cure, without any other treatment but the topical application of its sap (commonly called *milh*), as a caustic. Great in number are the cases of cure, some of which are already known of the public by means of the different publications made by the eminent physician of this city—Dr. Bandeira. Very good result there have been obtained also in wounds and chronic ziphilitic ulcers.

We receive the sap or milh of the alveloz, from the interior of the province(Brejo da Madre de Deus) from a trustworthy & well educated person. We may therefore guarantee that it is taken trom the very plant. We put it on sale preserved in such a way as to keep it from corroding, & with the needful fluidity to make the application of it sure of a good succers.

The way of using it.—The ALVELOZ is applied daily in a small portion on the part affected by the ulcer with a brush niade of feather in order to awid a large cauterization which brings much inflammation without any profit to the treatment which must be leugthened out, slow and perseverent. If Inflammation shoudl come, the applition of the medicine must be suspended till it ceases, & the wound is covered with thread soaked in water with carbolic acid (1 percent.) venewing it the times a day.

GENERAL DEPOT:

Pharmacia E. Drogaria de Bartholomeu & C. Sugg.
Rua Larga do Rosario n. 34—Pernambuco.

EARACHE.—There is no suffering more agonizing sometimes than earache. The usual remedies consist in dropping glycerine into the ear to which a few drops of laudanum or wine of opium have been added, application of hot fomentations, poultices of onions, inserting into the meatus a plug of cotton saturated with an ointment composed of vaseline and morph. sulph., etc. These remedies, although generally more or less efficacious, do not give immediate relief—sometime elapsing before the pain ceases entirely.

We find the following in the *Med. and Surg. Reporter:* "A short time ago we had a case of intense earache under our charge. The patient was a married lady, æt. 31. The entrance to the external meatus seemed greatly swollen and was very tender to touch. The patient apparently suffered great agony. From four to six drops of a two per cent. solution of muriate of cocaine were dropped on a piece of absorbent cotton, and the latter pushed into the meatus. By the time we had succeeded in placing the cotton as we wished, all pain had ceased. The patient was advised to repeat the procedure herself every three or four hours. Two days later the symptoms had all disappeared without any visible discharge.

"A little boy, æt. 3, was suffering from earache. For two hours the little patient rolled around in bed, the severe pain preventing him from sleeping. When we arrived the boy did not permit us to touch his ear, and we had considerable trouble in persuading him to allow us to apply the cotton, wet with a two per cent. solution of cocaine. The pain also yielded in this case at once, and the earache did not return."

Physicians in cities are not usually consulted for toothache, in consequence of dentists being convenient. But in the country, where dentists are few and far between, the doctor is expected to treat odontological affections. We would suggest, therefore, to our country professional brethren to try cocaine in severe cases of toothache We feel quite confident that, if a cavity should exist in a painful tooth, so that a little cotton freely wetted with a cocaine solution could be crowded into it, the relief would be instantaneous, however severe the pain might be. Of course, if the cocaine could not be made to reach the nerve or the lining membrane external or internal to the tooth, no effect would follow the application.

DECEASE OF DR. A. T. KEYT—RESOLUTIONS OF THE PROFESSION.—Dr. A. T. Keyt, of Walnut Hills, Cincinnati, died November 10. A number of physicians having been called together to take action on his death, Dr. C. G. Comegys was called to the Chair, and Dr. William Judkins was appointed Secretary.

Drs. A. E. Jones, Wm. Carson and W. H. Wilder were selected as a committee to prepare resolutions on the death of Dr. Keyt, and before adjournment presented the following, which were adopted as the sense of the meeting:

"Whereas, In the providence of an all-wise God, he has seen fit to call from our midst Dr. A. T. Keyt; therefore be it

"Resolved, That in his death we are called to mourn the loss of one who was an ornament to the profession, in both its scientific and practical departments; kind and trustworthy in counsel, esteemed and valued as a friend, courteous and honorable in all the relations of life.

"By his death the profession has lost one of its most earnest and faithful members.

"Resolved, That we tender our most sincere sympathies to the bereaved family, and that a copy of these resolutions be sent to them, and presented to our daily papers and to the medical journals of the city for publication."

Remarks highly eulogistic of the character and worth of Dr. Keyt were made by Drs. Comegys, Culbertson, Carson, Dunn, A. E. Jones and Kemper.

DECEASE OF A PHYSICIAN AND PHYSIOLOGIST.—We presume there is scarcely a physician in America and England who is not familiar with the name of Wm. B. Carpenter, C. B., M. D., LL. D., of London, England, and who has not read some of his works. As is well known, he is the author of several standard works, among them being a work upon Human Physiology, Comparative Physiology, Revelalations of the Microscope and Mental Physiology. His work upon Human Physiology has been more generally read by physicians and medical students than any other work upon the same subject in the English language. It is still extensively used as a text-book. His work upon the Microscope has gone through many editions, and continues to be regarded as affording the best elucidation of the subject extant. At the time of our writing we have not learned any particulars in regard to Dr. Carpenter's death.

SUICIDE OF A PHYSICIAN.—We learned by a telegram that Dr. William Frothingham, of New York, committed suicide during the present month by shooting himself through the head. The cause is supposed to have proceeded from mental aberration. He was noted, we understand, for great benevolence to the poor. It is said of him that he would arise from his bed at any time of the night to render gratuitous services to the poor. He was a surgeon in the army during the war, and, at one time, held a Chair in the College of Physicians and Surgeons of New York.

OMISSION OF NAME.—In the last number of the MEDICAL NEWS, through some carelessness, the responsibility for which we can not trace, the first original article entitled SCRAPS, did not have attached the author's name—A. E. Cobleigh, M. D., of Athens, Tennessee. The article, however, being a continuation of one in the number of the journal previous, having the same title, to which his name was attached, those who had read it would be apt to conjecture that he had written the latter one. But as Dr. C. is a highly interesting contributor to the NEWS, at one time having been the editor of an influential paper, we wish him to have full credit for all he writes for us. Our next issue will contain an article by him.

A LITTLE LEARNING IS A DANGEROUS THING.—The smart young lady who wrote a note to the doctor, asking him to visit her brother and bring his *urethra* with him, has been discounted by a well-informed medical student of Indianapolis, who was asked recently by his sweetheart to examine her throat for some slight ailment. Being anxious to exhibit his embryonic medical talents to his fair inamorata, he called for a spoon, dextrously depressed her tongue, gazed knowingly into the yawning chasm thus brought into view, and then, with a look of profound wisdom, informed her that *her vulva was greatly elongated.—Indianapolis Medical Journal.*

DR. GEORGE M. STERNBERG, U. S. A., has been reappointed delegate from this country to the International Sanitary Conference, which reconvenes at Rome in December. He has also been recently elected honorary member of the Royal Academy of Medicine in Rome.

American Academy of Medicine.

AT the ninth annual session held in New York City, October 28 and 29, the following papers were read: "The Study of Medicine as a Means of Education," by Dr. R. L. Sibbett, of Carlisle, Pa. "Medical Supervision in Student Life," by Dr. Charles McIntyre, of Easton, Pa. "The Climatic Treatment of Disease, with an Illustration of Western North Carolina as a Health Resort," by Dr. Henry O. Marcy, of Boston. "What is Medicine?" by Dr. Albert L. Gihon, United States Navy. "Health Officers, Ancient and Modern," by Dr Benjamin Lee, of Philadelphia. "Microörganisms and Their Relation to Disease," by Dr. Samuel N. Nelson. "Observations on the Relation of Bacteria to Certain Puerperal Inflammations," by Dr. Ernest W. Cushing, of Boston. "The Physician and His Patient," by Dr. J. D. Kelly, of Utica, N. Y. "On the Physicians of Delaware in the Eighteenth Century," by Dr. Lewis P. Bush, of Wilmington, Delaware.

The following officers were elected for the ensuing year:

President—Dr. R. Stansbury Sutton, Pittsburg, Pa.

Vice-Presidents—Drs. Lewis P. Bush, Del.; S. J. Jones, Ill.; R. L. Sibbett, Pa.; and F. H. Gerish, Maine.

Secretary and Treasurer—Dr. R. J. Dunglison, Philadelphia, Pa.

Assistant Secretary—Dr. Charles McIntyre, Jr., Easton, Pa.

Pittsburg was selected as the next place of meeting, on the third Tuesday in September, 1886.

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Original Contributions.

Infection, Bacteria and Infectious Diseases.

BY JAMES T. WHITTAKER, M.D.

History of Infection; Diseases Determined due to Micro-Organisms; Undetermined Diseases; Universality of Germs; Avenues of Penetration; Innocent and Pathogenic Germs; Properties of Bacteria; Color and Cultivations; Reproduction; Contagious and Miasmatic; General and Local Diseases.

Lecture Introductory to the Course on the Acute Infectious Diseases at the Medical College of Ohio.

"A LITTLE leaven leaveneth the whole lump." Lucretius says in his essay on The Nature of Things, "*Corruptio unius est generatio alterius.*" These mottoes are texts to the subject of our study to-day.

In 1836, Cagniard de la Tour announced the discovery of the yeast plant, and in 1837, Schwann showed in the course of experiments undertaken to disprove spontaneous generation, that putrefaction is impossible without bacteria. From this period of time dates the beginning of positive knowledge regarding micro-organisms. A number of authorities, Kircher, Linnæus, and others, had long before expressed the opinion that epidemic diseases are due to microscopic parasites, but these views remained hypotheses up to, and even long after, the time of the demonstrations of Schwann. By the year 1859, Pasteur was able to formulate the statement, "Without germs, no fermentation, no putrefaction." Schoenlein, in 1839, made the small but suggestive discovery that favus was caused by a parasitic vegetable growth, as a preface to the detection of parasitic growths in the production of herpes, tonsurans, tinea, chloasma, forms of eczema and other skin diseases, but there was no disposition to accept this genesis as a cause of the internal infections, until the zymotic theory of Berzelius and Liebig received its acknowledged death-blow with the demonstration of the cause of fermentation and putrefaction. It was the similarity of these processes to the course of the acute infections which continually turned attention to micro-organisms as the cause of infectious disease, in that the introduction of the minutest quantity of the active substance sufficed to induce the process in the entire body. In other words, the fermenting or putrefactive agencies, like that of infection, possessed the property of propagation. No purely chemical agent possesses this property. The power of reproduction or self-multiplication is limited to living things. Chemical substances admit of great subdivision, as best exemplified perhaps in the dissemination of odors, but such subdivision is attended always with gradual loss of substance. The torulæ of fermentation, or the bacteria of decomposition, multiply indefinitely with constant increase of substance. But no reasoning by analogy would suffice to carry conviction in any field of science. It remained to establish facts by positive demonstrations. For many years the germ theory of infection again suffered ridicule and discredit, because of the false conceptions of "undismayed pioneers" and overzealous advocates. Thus the *choleraphyton* which was proclaimed in England, and later again in Germany, turned out to be nothing else than eggs of intestinal worms; the "animalculæ" of variola eventuated in the common bacteria of putrefaction, and the palmellæ of malaria disclosed by one of our own fellow-countrymen were unmasked as foreign bodies, impurities, not even germs. Nevertheless, there still remained pathologists and clinicians, Henle, Budd, Liebermeister and Mitchell, of our own country, who persisted in the belief that no other theory could satisfactorily account for the acute infectious diseases, and the discovery of the trichina spiralis by Zenker in 1861, with the elaboration of its life history by Virchow and Leuckart, not only excited intense interest in itself, but reawakened it in the entire field of the infections. As yet, however, there had been no positive demonstration of such an origin in any one of the infectious diseases proper. This fact remained to be established, first of charbon (milzbrand), a virulent infectious malady in the lower animals, which sometimes, though rarely, finds expression as malignant pustule in man. Pollender and Brauell, in 1857, independently of each other, announced the discovery as constantly present in the blood of animals thus affected, of peculiar rodlike bodies which Davaine, 1863; Bollinger, 1872; Klebs, 1873; Pasteur, 1877, and more especially Koch, 1876, succeeded in isolating and cultivating in quantity sufficient to inoculate other animals to invariably produce the disease. In 1865, Pasteur discovered the micro-organism the cause of the disease of the silk-worm, *pebrine*, which was impoverishing the south of France. By the simple process of excluding the eggs thus affected, the disease was arrested and the prosperity of the country restored.

In the meantime investigations in the field of the septicopyæmic maladies began to disclose the presence of micrococci constantly in cysto-pyelo-nephritis. Rindfleisch, Klebs, Recklinghausen, Birch-Hirschfeld, and others, observed masses of micrococci (so-called zoöglea) in the pyæmic abscesses of wound sepsis; Waldeyer, Heiberth and Orth in the same conditions in puerperal fever; Lücke and Kocher in acute osteo-myelitis, infectious periostitis and strumitis; Nepveu, Orth, Recklinghausen and Lukomsky, Billroth and Ehrlich, Klebs, Tillmanns, Wolff, Koch, Ziegler and Fehleisen in erysipelas; Heiberg, Eberth, Burkart and Köster in ulcerative endocarditis; Neisser in gonorrhœa; Friedländer and Leyden in croupous pneumonia. Especial interest was excited by the discovery by Obermeyer, 1873, of the presence of a special spirilla during the period of pyrexia in recurrent fever, as the first micro-organism definitely accepted as the cause of an acute infectious disease of man. Hauser and Neisser followed with the discovery of the becillus of leprosy, and Klebs, Eberth and Koch with the special bacillus of typhus fever. But no one of these discoveries created the excitement which attended the announcement by Koch, in the *Berlin Klin. Wochenschrift, No.* 15, May, 1882, of the discovery of the bacillus tuberculosis, with the chain of evidence upon which the discovery was based. The world of medical science seemed to divide into two parties, *pro* and *con*, with the declaration of this momentous fact. The opposition which greeted the advent of this discovery, is only equaled in the history of medicine by the antipathy to the belief in the circulation of the blood announced by Harvey in 1628. The confirmation on all sides of the discovery of the bacillus tuberculosis, marked the new era in the history of the etiology of disease, equaled only by that of the discovery of the circulation in the history of physiology, but of far more practical value. From this epoch dates the general acknowledgment of the fact that infectious diseases are produced by micro-organisms. The indisputable evidence adduced in its proof, brought the germ theory from the realm of the ideal to the region of the real.

In the year following the publication of the discovery of the bacillus tuberculosis, Löffler, Schutz and Israel announced the bacilli of glanders, and the next year, 1884, was distinguished by the revelation by Koch of the comma bacillus of cholera.

Mention has been made thus far only of diseases whose definite causes have been discovered and universally accepted. Special forms of micro-organisms have also been declared for diphtheria, measles, scarlet fever, syphilis and malaria, but these declarations are not made by the same authorities, and do not rest upon the same conclusive proof. Hence the pathogenetic relation of these germs to these diseases remains as yet unsettled.

Germs of all kinds float in myriads in the air as a component part of the atmospheric dust. Water, except spring-water at its very source, everywhere holds them in solution or suspension. According to Miquet, a litre of the water of the Seine taken at Bevey, contains 4,800,000 microbes; at Asnieres, 12,800,000; the same quantity of rain-water, 248,000. They are found in quantity also in water that has been distilled, and in the heart of the clearest blocks of Norway ice. Cohn has shown that certain bacteria are not arrested by the superposition of sixteen filters. They cover the surface of the earth and penetrate it even to the depth of two feet. The lightest rise or float in the higher strata of the atmosphere, the heaviest gradually sink to the surface of the earth, whence they are being continually wafted about or lifted away with the unceasing movements of the air. Or they are washed down by the rain which "purifies the air," to be again dried and scattered by the sun and wind. Thus the "mud of the gutter to-day is the dust of the air to-morrow." Atmospheric dust, according to the researches of Pouchet, Ehrenberg and Vogelsang, varies in composition with the place, time and method of investigation. In closed rooms it is composed of particles of everything in the room of whatever form. Starch bodies, fragments of feather, horn and hair from animals, including insect life, are universal. The dust of the outside air varies in like degree. Particles of mineral matter are wafted even a thousand miles out to sea. Mr. Darwin relates, in his Voyage of the Beagle, that particles from a cloud of dust examined at this distance from the shore, turned out to be mineral matter. Dust from Africa has been recognized in Berlin. With all these substances, Ehrenberg found in the air sixteen distinct varieties of microscopic organisms. Besides and beyond all these ingredients, are the microscopic and ultra-microscopic bodies constituting the omnipresent germs which give the blue color to the sky.

In 1860, Tyndall began the series of experiments which demonstrated the fact that the dust of the air is combustible, that is, organic; and that, though this dust varies in amount in different places, it is present universally. The total combustibility of the motes in a ray of light, observed by Tyndall, is due to the fact, according to Dancer, that the air of London is filled with particles of coal. It is the dust of the air which makes light manifest. Air optically free of dust is dark as stellar space. Thus the sky is the dust of the earth.

The knowledge of this fact naturally became patent first to the surgeons and ophthalmologists, because they dealt with structures open to inspection, or into the depths of which they could see. They soon discovered that the process of suppuration required communication with the outside air, and examination of the products of inflammation convinced them that the elements in the air which produce the disease were micro-organisms. The doctrine of inflammation was now formulated into the simple statement: no air (micro-organisms), no pus; and the whole effort of surgical therapy consisted in excluding the air with its contents by means of so-called antiseptic dressing. One surgeon, especially, Lister, of Edinburgh, had the sagacity to put this fact to practical use at once, and thus to connect his name inseparably with the exclusion from wounds of atmospheric germs in the process known as "Listerism." So soon as this fact was acknowledged in surgery, it was seized upon by clinicians to explain the processes of disease in internal medicine. The difficulty here was to find in all cases the avenue of ingress to the interior of the body. Diseases of the respiratory tract and the alimentary canal, which lie open to the outside world, were readily enough explained, but how was it possible for air to penetrate to the interior of the body, to the brain, for instance, shut up in the skull, or to the interior of closed serous sacs, or of glands like the liver and spleen? In some cases it was ascertained that communication with the air had existed in the past history of the case, and had been subsequently cut off. Thus empyema presupposes a previous or existent communication with the lungs, if it shall not have resulted from a paracentesis, and peritonitis the same communication with the intestinal canal. Abscess of the brain is traumatic, or results from caries, and in either case the road is open to the air. The so-called abscesses without this communication, turn out to be simple softenings such as result from thrombus or embolism, and show or contain no pus. Then it is to be remembered that it is not the air, but the micro-organisms which the air contains, which produce the disease, and these micro-organisms finding entrance anywhere, may be carried by the lymph and blood supply to the most intimate recesses of the body, the kidneys, the retina, the joints, as in the multiple abscesses or affections of pyemia. Besides the air, the food and drink convey the germs of disease to the interior of the body, as in cholera and typhoid fever, and solutions of continuity afford them lodgment upon the surfaces of the body as in syphilis, hydrophobia and diphtheria.

In our day the dust of the air is weighed in a very simple manner. A definite quantity is drawn into a U-shaped tube partly filled with a known quantity of water. The water is then evaporated and the residue is weighed. Germs floating in the air are best collected for microscopic examination, cultivation and inoculation, by means of the apparatus devised by Hesse, which consists of a glass tube twenty inches long with the caliber of one inch, one end of which is covered with a rubber cap with a pinhole perforation in the center, over which can be subsequently drawn an additional imperforate cap. The other end is stopped with cotton, and through this plug is inserted another glass tube attached to an aspirator. Into the tube which has previously been sterilized for an hour, is poured a five to ten per cent. sterilized fluid gelatine, which flows along the bottom of the tube supported horizontally on a stand. So soon as the gelatine has "set," the imperforate cap is removed and air is slowly drawn through the tube by the aspirator. Thereupon the imperforate cap is replaced and the germs are allowed to develop, under the proper temperature, as visible opacities, clouds or colonies in greater number near the orifice at which the air entered, and more and more sparsely toward the aspirator end of the tube. In experiments conducted in this way in Paris, Tissandier, 1880, found on the average in one cubic centimeter of air 0.0075; after a drought of eight days, 0.0230; after a heavy rain, 0.0060 grammes of dust, which consisted of 27 to 34 per cent. combustible, that is, organic matter, and 66 to 75 per cent. incombustible, that is, mineral matter. Fodor, 1881, found in his investigations an average of 0.4 mgrms. dust in each cubic meter of air, varying with the seasons of 1879, as follows: winter, 0.24; spring, 0.35; summer, 0.55; autumn, 0.43. Thus, the quantity of atmospheric dust is least in winter and spring, most in summer and fall. Having cultivated some of these bacteria (desmo-bacteria with spores) to sufficient quantity, he introduced them into the bodies of rabbits with such effect as to induce generally fatal infectious disease. Tichborne found in the atmospheric dust of the streets of Dublin organic matter varying in proportion from 31 to 45 per cent.; and in the theatres and concert halls from 35 to 53 per cent. This organic matter reduces nitrates to nitrites, and induces active fermentation in solutions of sugar. In the examination of the air of the park of Montsouri, Miquel, 1882, reached the same conclusion, that "the average number of microbes in the air is feeble in winter, and augments rapidly in spring," and that rain always diminishes their number by washing them down to the ground. The purity of the upper strata of air was demonstrated by Freudenreich, 1884, who made a number of investigations at altitudes varying from 2,000 to 3,200 metres. Two thousand litres of air examined on the Aletsch glacier, 3,000 metres high, contained but two bacteria, one fungus and one torula. Three cbm. air on the Theodule, 3,340 metres, contained but one solitary bacterium, while the air of Berne swarmed with micro-organisms. The effect of local impurities is well illustrated by the report of Breslauer, 1885, who found in three series of examinations of the streets of Brandenburg micro-organisms capable of cultivation on the clean streets, in each 10 litres of air 3—9, and on the foul streets, 12—43 in number. The air over two ditches receiving sewage, contained contaminating organisms in each 10 litres of air, varying from 59 to 112 in number, while the same quantity of air of the country, five miles from the city, showed from 4 to 11.

But the great mass of micro-organisms are innocent to man. The common bacteria of putrefaction are, in fact, his greatest friends, in that they return to earth and air everything that has ceased to live, and without which action life would soon be impossible. It is only under certain circumstances that the bacteria of putrefaction may prove injurious. But very few organisms are pathogenic, and the question next arises, How shall the dangerous be distinguished from the harmless bodies?

Pathogenic micro-organisms are known, in the first place, by their morphology that is by their size, shape, and general appearance; secondly, by their chemical affinities as shown in their reactions to coloring matters; thirdly, by their preference of soil in cultivation experiments, and the manner in which they grow in the soil; fourthly, by the effect produced by their introduction into the bodies of various animals.

Confining ourselves exclusively to internal diseases, it is now recognized that pathogenic micro-organisms assume, or are found in one of three general shapes, the spherical body known as the micrococcus, the filiform or rodlike body known as the bacillus, which may be blunt or pointed at the ends, the spiral body known as the spirillus or spirochate. The term bacteria (Baktron, a rod) is now generally extended to apply collectively to the whole class of micro-organisms, the study of which is known as bacteriology, though it is sometimes confined to the germs of decomposition alone, or is again used to designate the shortest bacilli. These bodies constitute the simplest and lowest forms of all living things. From their mode of propagation by fission, they fall in botanical classification under the division of schizomycetes (Schizein, to split), and are now known to belong to the plants which are free of chlorophyl. Lacking, therefore, the capacity to convert inorganic into organic compounds, they are forced to draw nutrition as parasites from preformed organic matter. The body of a bacterium consists of a protoplasm mostly colorless inclosed in a delicate membrane like cellulose, insoluble in acids and alkalies. Most species are endowed with motion, gyration, "sometimes with address and agility," rotation, oscillation, or flexion and extension, but lack of oxygen in most cases, and lack of a proper temperature and nutrition in all cases, soon deprives them of this power. The bacilli of tuberculosis and milzbrand, together with all micrococci, have no motion at any time. According to Cornil and Babes, this motion is secured to micro-organisms by means of vibratile cilia at their ends. Bacteria not endowed with cilia, which are absent from all micrococci, remain quiescent. Warning and Cohn believe motion to be a property innate or inherent to the protoplasm.

Size.—Bacteria vary greatly, in both length and breadth, but are for the most part so small as to be on the confines of the visible with the microscope. In fact, it is chiefly by reason of the recent improvements in the illumination and magnification of the microscope, the oil immersion lens, and Abbe illumination apparatus, that they have been rendered visible at all. Some of them are to be seen only with a power of 700 diameters, which is the magnification generally used in the study of all micro-organisms. Mycologists speak of micro-meso and megacoccus, or bacteria, of the micrococcus prodigiosus, and of the bacillus subtilis, but these are all, of course, relative terms. Pathogenetic micro-organisms vary in length from 1 to 40m. (Greek), and in breadth from 0.5 to 7m. Many micrococci are too minute to admit of any accurate measurement. The largest micro-organism is the spirilla, which may reach a length of .2 of a millimeter. Perhaps a better idea of size can be conveyed by comparison with a familar object. The bacillus tuberculosis, which occupies in respect to size a median place, varies in length from $\frac{1}{1200}$ to $\frac{1}{3500}$ of an inch, the smaller measure being the average diameter of a corpuscle of human blood.

Although some distinction may be made between pathogenic and innocent organisms by their morphology, the most skillful mycologist would hesitate to express an opinion on this fact alone. But micro-organisms may look alike and yet be very different. Spermatazooids of different animals may present the same general appearance, but they are endowed with very different properties. We remain as yet at too great distance to make out the distinguishing features of innocent and dangerous micro-organisms. As Birch-Hirschfeld remarked, it would be impossible to declare of a man standing on the spire of the Strasburg cathedral, whether he was black or white, and even the same configuration in every particular would furnish no more definite criterion than in the case of full grown serpents of the same appearance, some of which only are poisonous.

Though certain micro-organisms in their growth may develop color as the blood color of the micrococcus prodigiosus upon moldy bread, observed upon the hostie at times in damp churches, and considered as a miracle, or in the blue and green color imparted to pus, sweat, urine, etc., pathogenic bacteria are themselves colorless, a fact which furnishes additional explanation of their late recognition. But bacteria of all kinds may be colored, and definite distinctions are afforded by the affinity or avidity for certain dyes exhibited by different varieties. To Ehrlich is due the credit of having made the valuable discovery that bacteria of all kinds are best displayed by the various colors of the analine dyes. All micrococci can be tinted of any color, almost indiscriminately, blue, or red, or brown, etc., but bacilli show marked preference or tenacity for certain hues. Thus, in the case of the bacillus tuberculosis, the specimen containing it must be tinted first, then be decolorized and tinted again a different hue, to bring it out with definiteness and distinctness. These bacilli retain the first color, while everything else in the field is decolorized to assume the dye applied later. The bacilli of leprosy alone possess this peculiarity, but they may be colored only when fresh, not after dessication; hardened in alcohol, however, they may be colored for years with gentian violet or fuchsin. The spirochates of relapsing fever can be colored properly only in blood, not in the tissues with fuchsin, methyl violet or gentian. In section they can be colored only with analine-brown.

Then while many bacteria may be cultivated in almost any kind of "culture soil," they differ in the degree of development, according to the nature of the soil. Thus Willkommen has observed that the germs which thrive upon the South America potato, can not be made to grow upon the European potato. The micro-organisms which give the peculiar piquancy to Stilson and Roquefort cheese, grow better in certain cellars than others. The first experiments in cultivating bacteria, were in fluids, solutions of meat, beef-tea, chicken soup, malt extracts, infusions of hay, etc., but fluids are open to the objection that they admit other germs to coalesce with, and render impure, the special variety to be studied. Pure cultivation became possible only with the use of the solid culture soil first employed by Koch. Germs falling upon a solid surface remain fixed in the same place. The solid culture soil made practicable the absolute isolation of germs without which accurate investigation is impossible. Koch made his first studies with the common potato. The potato was the key to the whole subject of solid cultures. We might say what the apple was to Newton, the potato was to Koch. Subsequently gelatine was employed, then aqueous humor, then gelatinized meat preparations, peptonized gelatines, etc., and as a climax, gelatinized blood. Thus has been determined the peculiar soil in which the varieties of pathogenic bacteria thrive the best. Moreover it is seen that the colonies in their growth assume different forms or shapes, or exercise different effects upon the soil. Not to specialize too much in a chapter devoted to general remarks, illustrations may be found in the bacillus tuberculosis, which spreads out upon the surface of the soil, and never invades its depth, while the colony of cholera bacilli assume a funnel shape, whose narrow stem and apex extend deep into the gelatinous mass The bacilli discovered by Finkler in the discharges of cholera morbus, which bear a general resemblance to Asiatic cholera, are readily differentiated by the broad cone shape which the colony assumes in its soil. Different bacteria vary also in the degree in which they fluidify the semi-solid substance of their soil.

Lastly pathogenic bacteria are distinguished by their physiological effects. From any special successive generation of a special variety of bacteria, material may be selected for introduction into the body or blood of various animals.

But it must be understood that all pathogenic micro-organisms are not infectious. There are micro-organisms which produce disease in the same manner as the poisons. They induce chemical change which is not transmissible to other bodies. In some cases the original pathogenic agent may have itself suscumbed to the disease process which it has evoked. Then it must be remembered that animals are not alike susceptible to the same poison. Animals do not experience the same diseases, and the same pathogenic agent may produce a general disease in one animal, and only a local inflammation in another. How capricious this disposition may be is evidenced by the fact that domestic mice are quickly killed by the minute bacilli of mouse-septicemia, while field mice are not affected by it at all. The bacilli of milzbrand kill mice but not rats. The bacteria of rabbit-septicemia are always quickly fatal to rabbits and mice, and may be communicated to sparrows and doves, but do not affect guinea-pigs and rats. Guinea-pigs have singular susceptibility, and dogs singular immunity to tuberculosis. Age plays the role in these experiments for which we are prepared by clinical investigations concerning the acute infections. Thus milzbrand will affect young dogs and rats, but not older animals. Perhaps the most singular action is observed in this connection in mouse-septicemia, the bacilli of which kill young rabits, but produce only a local affection or inflammation, a kind of erysipelas, in old rabbits.

As has been stated already, micro-organisms have received the same schizomycetes, because they reproduce themselves by fission, but this mode of generation is not the only, or by any means the most frequent method of reproduction. Bacteria develop also, by the formation of spores, clear spherical bodies once regarded as micrococci. In some cases the spores may be developed in the interior or along the course of the body, in others at the ends of the bacteria. De Barry proposes to distinguish the two modes as endo-spores and arthro-spores. In either case the protoplasm clears up at the point of formation of the spore to assume the shape of a minute drop, of greater diameter at times than the bacterium itself. Such spores at the end of a long bacillus, have been compared by Cornil to the round hammer on the end of the bell-stroke of a clock. Bacilli filled with spores which may exist to the number of three or four, show a checkered or beaded surface. The activity of the formation of spores is an index to the degree of nutrition. The liberated spores soon break the spherical surface with a point which gradually elongates in turn to form the perfect bacillus. Spores therefore may be regarded as the seed of the bacillus, and like all seed, they are much more resistant to destructive agents, much more tenacious of life, than the complete or adult structure. In many cases it is an easy thing to kill the bacilli, while it is almost impossible to eradicate the spores with agents not destructive, also, to the fluids or tissues in which they exist.

Reproduction takes place in bacteria, whether by fission or spore formation, with a rapidity bordering on the marvelous. Dallinger and Drysdale thus describe the development of certain monads under observation. At first the normal, almost oval, form divides into two, even to the exquisitely delicate hairlike process upon its surface. This was accomplished in six or seven minutes. At this rate a single form would give rise to a thousand like itself in the coarse of an hour, to about a million in two hours, and to a number greater than the generally assumed number of human beings now living in the world, in three hours. The apparent suddenness of appearance of multitudes of such organisms is thus easily explained. Davaine has calculated that a single bacterium would in the course of twenty-four hours become the parent of 4,096 such bodies ; in forty-eight hours to over 16,700; and between the sixtieth and sixty-second hours their numbers reach even to seventy-one trillions. Cohn indulged himself in the pursuit of a calculation of this kind, reaching the conclusion that the progeny of a single bacterium, unchecked in growth, would in the course of three days reach the appalling weight of fifteen million pounds Troy, and in five days fill up a space of 928,000,000 cubic miles, the estimated capacity of the entire ocean. But while some such calculations may be justifiable to convey some adequate idea of the degree to which the earth and the air may be filled in a few days, during the prevalence of an epidemic, it must be remembered that it was the indulgence of flights of fancy like these that first brought the germ theory into discredit and derision. Check is put upon the development and reproduction of all bacteria by the lack of nutrition, which sooner or later must ensue, as well as by the inimical action of different varieties upon each other. Thus the bacteria of decomposition cease to multiply and perish by the myriad, so soon as the material of their food is converted into inorganic matter; the bacteria of fermentation are destroyed, or their reproduction is checked, by the alcohol which they form, the bacilli of cholera with dessication, etc. The bacteria of most diseases perish with the death of their host as well as from various other causes in life, as by the fever they evoke, or are themselves destroyed by the bacteria of putrefaction.

The soil upon which the micro-organism falls, merits consideration next. It is a matter of the commonest observation, that during the prevalence of epidemics that have assumed even the most appalling proportions, the great majority of individuals escape attack. In many cases this exemption is doubtless due to the fact that the pathogenic micro-organisms do not come in contact with, or find entrance into, the bodies of individuals thus spared; but considering in these cases the almost universal dissemination of pathogenic organisms, the explanation is rather to be found in the fact that such persons do not furnish a fertile soil. So individuals accidentally, or sometimes even purposely (*experimenti causa*), receive the germs of infectious disease and remain unattacked. Germs thus received may perish quickly, are destroyed for instance by healthy and abundant disgestive juices, or they may remain latent for a time to meet with favorable conditions for development later, as after exposure, as in the process of "taking cold" after some intercurrent disease, or after trauma. It is thus that a bronchitis may ''develop'' tuberculosis, or a fall a caries of the spine.

It has often been remarked that the most widespread epidemics do not greatly, if at all, increase the mortality list by the end of the year. This statement finds explanation in the fact that infectious disease finds its readiest victims, in other words, its most fertile soil, in the weak and vulnerable constitutions, in the bodies of individuals reduced by other diseases. So Birch-Hirschfeld exclaims: ''Only he is affected by disease who was already ill.'' It is needless to remark that quite trivial or accidental circumstances at the time of exposure may admit or shut off the organism or disease. Thus a break of the epidermis may give lodgment to the germs of erysipelas, diphtheria or syphilis, an indigestion may permit the growth of cholera, or a light catarrh may favor the development of tuberculosis. These are among the factors which go to make up the susceptibility to infectious diseases.

The world of micro-organic life falls naturally into two great divisions. One is found everywhere at all times, in all places, and, as we have seen, in abundance enough to realize the panspermatism of the ancients. Such germs are known as omnipresent, or, from the fact of their ability to obtain sustenance everywhere, as omnivorous germs. Hallier proposed to call them cosmopolitan, but Cohn devised the best appelative, when he spoke of them as ubiquitous. Myriads of these germs are entirely innocent to man. Others are injurious only under certain circumstances. Thus the ubiquitous germs of common putrefaction may penetrate the body from a slough or a gangrenous part, to produce by their presence, or the chemical changes they induce, the condition known as septicemia. Thus the pus-producing micro-organisms, probably of many kinds, belong to the class of ubiquitous germs.

On the other hand, most pathogenic micro-organisms are indigenous to certain definite places. These are the epidemic germs. Thus the mouths of the Ganges and Brahmaputra are the centers of cholera, Lower Egypt of the plague, the Antilles of yellow fever, Ireland of typhus. But just as plants of higher organization may be transplanted to other soils, many original endemics assume epidemic, and finally pandemic proportions or extent. Thus smallpox first showed itself in Germany in 1493, an importation from the Netherlands, but it was not until 1527 that it was transported to our continent, making its first appearance with wholesale slaughter in Mexico, and gradually extending thence over the whole of North America. Scarlet fever, which is first heard of in Arabia, was not seen in our country until 1735. It reached Iceland in 1827, South America in 1829, Greenland in 1847 and Australia in 1848. Measles has not been carried to Australia up to the beginning of our own decade. Cerebro-spinal meningitis, in all respects the most irregular of all epidemic diseases, first fell upon our country in 1806. Cholera was unknown with us until the memorable year of 1832. Even tuberculosis, which has long since assumed pandemic extent was, as Liebermeister has shown, not originally ubiquitous, as it remained unknown to our own Indians, to the Aborigines of Australia and the negroes of Central Africa, until carried to them by more civilized races. There is therefore no longer question of the spontaneous, or so-called autocthonous, origin of infection. Typhoid and typhus fevers, dysentery and diphtheria, pyemia, erysipelas and puerperal fever appear only at times when lurking germs and spores from previous cases find favorable conditions for development, or after fresh importations of the disease. All this disease, all infectious disease, is of exclusively parental birth, and can no more originate spontaneously than can serpents and crocodiles originate from heat and mud, as Lepidus maintained, bees be produced from the purifying entrails of steers, as Virgil described, or mice be generated from sawdust and old shirts, as Van Helmont claimed. In keeping with these theories, were the views since maintained that the plague arose from the putrefaction of corpses, yellow fever from the crowding of slave ships, cholera from decaying vegetable food, typhoid fever from the emanations of human excrement, consumption from bad ventilation, or oftener from a bad cold, and diphtheria from sewer-gas. These are factors which do undoubtedly favor the spread of the infectious maladies, but may never originate the birth of one. A fright may cause a premature birth, Juergensen remarks facetiously, but it would never conceive a fetus.

Thus is explained the specificness of acute infectious disease. Each one of these diseases produces itself alone. Measles begets measles, smallpox begets smallpox, cholera begets cholera. Figs would be born of thistles, or grapes of thorns, as soon as cholera of smallpox, or diphtheria of typhoid fever. The introduction into the blood of a specific germ begets the specific disease, and the fact that each one of the acute infections has always presented the same characteristics, proves conclusively that no change has occurred in the properties or peculiarities of the specific cause. For so long as observations have been recorded, measles, for instance, has always been the same disease, with the same period of incubation, the same prodromata, and the same eruption, the same complications and the same termination. New interpretations of the phenomena of the acute infectious diseases have been made from time to time, more searching means of study have developed new signs, but the characteristic features of each of the acute infections have always remained the same. The accurate observations rendered possible by the adoption of the solid culture soil are in thorough accord with these conclusions. The essential nature of pathogenic bateria is not changed by alterations in the soil or other surroundings. Bacteria may be shriveled or dwarfed, or reproduction checked by lack of oxygen, unsuitable nutrition, improper temperature, but they may not be changed in nature. Up to the present time it has been found impossible to convert innocent into pathogenic forms, and the observations recorded which seem to lend support to the transmutation theory, as by Buchner, Bastian, Nägele and others, have been shown to rest upon inaccuracies or impurities.

But the case is very different with the converse of this view, which opens up one of the most interesting studies in mycology. Is it possible to deprive the pathogenic forms of their pathogenic properties? The belief is still maintained, by some clinicians, at least, that vaccinia is smallpox which has lost its virulence by passing through the body of a cow, and the question of attenuation of so-called virus of virulent disease, with the view of inoculating it in milder form, occupies the attention of prominent mycologists at the present time. Within the present decade this question has been answered in the affirmative with reference to the virulent bacteria of charbon. For it has been discovered by Pasteur and by Koch, that under the influence of high temperature and various chemical agents, the bacteria of charbon may be made to suffer loss of their pathogenic properties, while they still retain all other characteristics, including the capacity of reproduction. Pasteur claims to have effected the same attenuation in the case of hydrophobia. But these observations do not support the view that any change of nature has been experienced in this way. Bacteria thus treated are not changed into innocent forms. They have simply lost the physiological property of infection. Baumgartner puts it pertinently when he says it is not a question of changing poisonous into innocent snakes, but of extracting the poison fangs from animals which otherwise remain the same.

Protection by inoculation in this way depends upon the immunity which is secured by one attack of certain infectious diseases against its repetition. We lack as yet a sufficient explanation of the immunity thus conferred, though three plausible hypotheses have been proposed. The first is the theory of exhaustion, which assumes that the germs of the disease exhaust the elements in the blood necessary to their nutrition. Something analogous to this is seen in vegetation of higher structure, which can not be made to grow indefinitely in the same soil. The second is the antidote theory, or the theory of antagonism, which supposes that certain products evolved from the soil in the multiplication or growth of the germs react upon them fatally. The analogy here is found in the process of fermentation, whereby the torulæ cease to produce themselves, become quiescent and sink to the bottom of the vessel as soon as the proportion of alcohol reaches twenty per cent. There is reason to think that the fever evoked by micro-organisms, is in some cases fatal to their growth and life. The third is the theory of accommodation, which maintains that the tissues in their first struggle with the micro-organisms acquire a higher degree of energy or vitality, whereby they are enabled to endure or resist future attacks. Perhaps a simile may be found for this hypothesis in the process known as acclimatization. But obvious objection pertains to each of these assumptions, so that the question of immunity remains as yet unsolved. As a matter of course, the introduction of a milder to prevent the development of a severer form of disease, applies only to the maladies which occur but once, smallpox, measles, scarlet fever, typhoid fever, etc. The fallacy of the recent attempt to forestall Asiatic cholera in this way, as of the hope to escape tuberculous disease, which may recur repeatedly, becomes evident at once.

So far from further immunity being conferred by one attack, it is a well established fact of certain forms of infection, diphtheria, acute articular rheumatism, dysentery, that one attack rather predisposes to another. Liebermeister has made the curious observation that the diseases characterized by a single attack of fever, with its resolution by crisis or by lysis, the so-called monoleptic fevers, as the exanthematic fevers, typhus and typhoid fevers, whether the duration of the disease be only five or six days as in measles and scarlet fever, or two or three weeks as in typhus and typhoid fevers, occur but once, while the diseases characterized by successive separable attacks of fever, the so-called polyleptic fevers, as malaria, relapsing fever, rheumatism, erysipelas and pneumonia, are subject to recurrence. The secondary fever of variola is no exception to this rule, as this fever of irritation is due to the severity of the local process, and not to the original cause.

The question now arises, How do pathogenic micro-organisms produce the phenomena of disease? From the rapidity of their multiplication, it might be inferred that the symptoms and lesions of the infectious maladies were caused by the mere presence of these organisms as foreign bodies. But it has been observed that the bacilli of milzbrand alone multiply in the body in such numbers as to produce extensive occlusions of vessels. Further it has been shown that no mere mechanical presence, no mere foreign bodies, aniline particles, or granules of cinnabar, ever induce the signs of fever or toxicemia. The micro-organisms of disease live in the body, and must therefore be nourished at its expense, whereby they withdraw from the blood or tissues elements essential for their nutrition. Most micro-organisms require oxygen. In processes of fermentation, outside air is excluded, that the germs of fermentation may be compelled to withdraw oxygen from its soil. Pathogenic micro-organisms multiplying in great abundance seize upon the oxygen of the blood with such avidity as to develop in fulminant forms the symptoms simulated by prussic acid poisoning. Then in the nutritive changes which must ensue in the cells of the body deprived of various essential elements, inflammation must result. In many cases also, as in cholera and typhoid fever, chemical poisons seem to be evolved either from the micro-organisms themselves, or from the effect of their action upon the blood and tissues, so that symptoms of blood-poisoning supervene. The fever which accompanies or attends all the mycoses in greater or less degree may be due to a "general reaction," whatever is meant by an expression so diffuse, or more probably to the direct effect of micro-organisms upon the heat-regulating centres. These are, however, questions too newly sprung to be satisfactorily solved as yet.

When an infectious disease is propagated by contact, direct or indirect, it is known as a contagious disease; when it arises independently of contact, it is known as a miasmatic disease. Contagion develops within, and miasm without the body. The germs of contagious disease may live outside the body under favorable conditions for a long time, but they may not live indefinitely. Sooner or later they perish and new cases of the disease cease to appear, until fresh importations occur. The germs of contagious disease are thus, strictly speaking, parasitic. It is otherwise with the organisms of miasmatic diseases, which live, thrive and reproduce themselves indefinitely without any regard to the body. The germs of contagious diseases develop in the body as a necessity of their life, but the germs of miasmatic disease develop in it only as an accident.

Examples of the contagious diseases are measles, smallpox, scarlet fever, typhus and recurrent fevers, syphilis, pyæmia and puerperal fever, whooping-cough, hydrophobia, erysipelas and tuberculosis. Smallpox gives off its contagion from the skin, in greatest vurulence just before the vesicle becomes a pustule, but also even in the period of incubation; likewise from all the secretions, and the blood, from which even the placenta does not filter it off. In measles the disease may be inoculated with the blood, the tears and the sputum. Scarlet fever infection is in the exhalation and desquamation from the skin and lungs, and that of typhus fever irradiates in every direction from every surface and section. The sputum disseminates the organisms of tuberculosis.

Examples of the purely miasmatic diseases are the malarial affections, yellow fever, acute articular rheumatism, endocarditis, cerebro-spinal meningitis, pneumonia, osteo-myelitis and septicemia.

But no division made as yet will cover all the acute infections. Under which class, for instance, will fall cholera, dysentery and typhoid fever? Since it has been shown that cholera may be successfully inoculated by the introduction of its germ directly into the duodenum, that is, below the main action of the gastric juice, it will probably be assigned a place among the contagious maladies. As to dysentery and typhoid fever, it seems to be established that the direct reception of the germs believed to produce the disease, will not suffice to induce an attack, while it is as well established that after a lapse of a certain indefinite time, drinking water, milk, or possibly food contaminated with the presence of the germs become decidedly infectious. A plausible hypothesis has been invented to account for this condition. It is intimated that the germs of these diseases may have to undergo some intermediate stage of development, as in the cases of several intestinal parasites, before they become infectious.

The contagious diseases are distinguished by the fact that their specific micro-organisms multiply in the blood, to be given off from the body in the same condition. The germs of the miasmatic affections are not scattered in this way. They do undoubtedly multiply in the body, and induce in it chemical change, but their action is like that of a purely chemical poison, which inflicts its damage and is changed into other substances or remains in the body in its original form.

A natural division of the acute infections is into general and local diseases, the essential difference consisting in the fact that the germs or poisons are transported throughout the whole body by the blood in the general diseases, while in the local affections they remain at or about the point of reception. Types of the general infections are measles, smallpox, scarlet fever, typhus, recurrent, yellow and malarial fevers, cerebro-spinal meningitis, syphilis, poly-articular rheumatism. All of these diseases show local manifestations, in the skin, the liver and spleen, the mucosæ and bones, and joints, but these manifestations are but local expressions of pre-existing general infection of the blood.

Types of the local infections are gonorrhœa, erysipelas and pneumonia, whooping-cough and dysentery. Some of these diseases may be followed by distinct effects, by metastases in the joints, paralyses, meningitis, nephritis, pleurisy and pericarditis, but these effects are the result of complications, more especially suppurations, and do not strictly belong to the diseases themselves.

But it is as yet impossible to assign every one of the infectious diseases to an absolutely definite place in this division. For there still remain affections which belong to neither category, but which are strictly local at first to become general or constitutional later. Diphtheria, tuberculosis, pyæmia and puerperal fever, all belong to a class of diseases which begin as localized, often closely circumscribed affections, to later break down the intervening barrier, reach and inundate the blood, to invade the entire body.

The history of each particular form of disease, with what is known of the properties and habits of its special cause, remain to be considered in the course of our study of the various acute infections.

Voluntary Subluxation of Lower End of Ulna.

BY E. A. COBLEIGH, M.D., ATHENS, TENNESSEE.

A COUPLE of months ago I reported, through your columns, a case of somewhat singular control of the cardiac rhythm by a person under my observation. To-day I have had the privilege of carefully examining a *rara avis* in the way of a surgical curiosity. I will give you the details in full.

About a year ago, while roller skating was epidemic in this section, a young lady, eighteen years of age, fell at the rink, a few doors from my office, and sustained a compound fracture in the near vicinity of the wrist-joint. I was sent for, but was out of town. An experienced colleague was sent for, but was also absent, so a medical tyro, then attempting to practice here, was called in and "set" the bone as follows: A circular band, or bracelet, of thin pasteboard, about three or four inches wide, was bound around the arm without any padding whatever, and a roller put over all. No extension, counter extension, or other effort was made to put fragments in opposition, because, as the operator stated, there was "danger of pulling the wrist out of place." These facts were given me by reliable eye witnesses of the whole proceeding, some of whom openly protested against this method of treating the injured limb, and I was importuned by mutual friends of myself and Miss H.—the patient —to go and rectify any wrong that had been done. This I positively declined to do, on mere hearsay evidence, such as I had. The bandage was not removed or examined till the fourth day, when so much swelling occurred that the attendant himself cut the lower part loose to give the hand, and especially the thumb, more room. Otherwise the dressing remained untouched for weeks, till it was finally removed, *after* union of the bone occurred and cure was claimed.

Well, I heard much about this case from various sources, and often met the young lady, but, though I could see a slight deformity of wrist, I never sought a chance to examine it, and she rather shunned me, on the idea that her grand-father had employed me to break the bone over again, and reset it. Of late, however, she had been accompanying another young lady to my office on frequent occasions, and to-day the subject of her wrist was brought up by the girls themselves, and, very pleasantly, she volunteered me an opportunity for examination.

I found a fracture of the ulna had occurred, about one and a half inches above its inferior extremity. The superior fragment had extruded forward at time of injury through the median line of forearm to slight degree. Union was firm and bony. But the fragments had united at an angle, salient to the inner and posterior surfaces of forearm, yet only very slightly noticeable by the eye; not really a deformity, and not materially interfering with the usefulness of the member.

What caught my attention at once, however, was the phenomenal motility of the distorted bone at its ulna-radial articulation. With the greatest care I could move this bone forward, backward, and away from its fellow, laterally (with easy yielding of the superincumbent soft tissues) to the extent of five-eighths and three-fourths of an inch. While quietly manipulating thus, she laughed and said she could do that herself, and proceeded at once to make good her words. She moved the ulna forward and backward with ease, to same degree that I had done, but had no voluntary muscular power to abduct that bone. On my expressing surprise at her wonderful control over these movements of subluxation, she carelessly remarked that when she was a mere child the other arm had been broken, and had left the wrist in same fix, as to motion. I found that she had the same power of muscular dislocation of ulna here as in left forearm, but the most careful search on my part failed to find the slightest trace of any former fracture hereabouts, and I so informed her. She was not certain of the break, but said it might have been a dislocation, which was erroneously regarded by her parents as a break (she is now an orphan). She also insists that the preternatural motility of left ulna never existed till after the fracture of last year, but that she often entertained and diverted her young associates by luxating the right bone.

I leave my readers to form their own theories as to the mechanism of these movements, based, of course, on the anatomical structure of the radio-ulnar articulation, and the muscles involved in the case. Miss H. is not materially incommoded by the abnormality except in piano playing, and she tells me she is very awkward and ungraceful as a pianist, so much so as to restrict her musical studies, and debar her altogether from playing before any but her intimate friends. Lastly, she showed me another anatomical peculiarity. She has the power of approximating her scapulæ to within half an inch of the touching of their internal borders, and can move them with undue freedom in every direction, at the same time causing crepitation and loud popping under their surfaces as some people "crack" their knuckles. She is, for her age, a little under size, and, while not by any means spare in build, is lacking to a slight degree in plumpness, though hardy and healthful. To me, at least, these anatomico-physiological peculiarities of hers were quite a curiosity, and so I report them for others to ponder over, without taking time to hunt up and read the literature of the subject at present.

Translations from Our Foreign Exchanges.

Translated for MEDICAL NEWS, from the French, by Dr. Illowy, Cincinnati, Ohio.

TURPENTINE IN CUTANEOUS DISEASES, BY DR. RADCLIFFE CNOCKER.

To the list of efficacious agents, beginning with arsenic, the most precious and comprehending, sulphur, carbolic acid, etc., the author adds turpentine, administered internally in doses ranging from five to seventy-five grains. He prefers to administer it in an emulsion of gum acacia, but admits also granules. If barley water be given at the same time, the urine, which will give the violet odor, will diminish somewhat in quantity, but no dysuria will be produced. If we have seen the urine become sanguinolent and albuminous, it was always because too strong doses had been given at once, or because the barley water had been neglected. Administered in the evening, it will disturb the system more than if given in the morning, for during the night the turpentine remains in the bladder. It is contraindicated in infants under five years, and in persons in whom we have reason to suspect some lesion of the kidneys. Its mode of action is a vaso-motor excitation which acts on the dilated capillaries of the dermatosic patches, rather than any specific effect upon the cause of the malady. In inveterate psoriasis, after a transitory period of excitation indicated by the itching, the scales become detached from the surface of the derm, the redness of which is greatly improved. It is in this inveterate psoriasis (dermatose de Santa Illia), wherein the author extols the use of turpentine, which has rendered him great service in chronic eczema also, and which is regarded in England as of great utility in purpura.—(*Lyon Medical, Union Medical de Canada.*)

FROM THE PROCEEDINGS OF THE BIOLOGICAL SOCIETY (PARIS).

M. Block presented the results he had obtained by graphic means in his studies on affections of the heart. His experiments were based on the well-known fact, the retardation of the pulse.

"Studying the retardation that exists between the radial pulse and the systole, we perceive that the retardation varies according as the arm is raised, pendent or extended. I have studied this retardation, not from the shock of the heart, but from the carotid; for, in certain affections, if the tracing of the heart be not very clear, that of the carotid is generally much more so. When the arm hangs I observe a retardation; this retardation is much greater in cases of cardiac affections when the arm is extended; it varies between $\frac{2}{100}$ and $\frac{6}{100}$ of a second.—When the arm is elevated, the retardation is still greater, for the resistance to the column of blood is greater and the effort of the heart is much greater. In a healthy individual this retardation is almost non-existant.

"In normal cases when the arm hangs, the retardation varies between $\frac{2}{100}$ and $\frac{4}{100}$ of a second; when the arm is raised, it is about $\frac{1}{100}$ more.—In cases of cardiac affections and of mitral insufficiency, the retardation varies between $\frac{8}{100}$ and $\frac{10}{100}$ of a second; when the arm is raised, this retardation may reach $\frac{14}{100}$ of a second.—Moreover, the retardation is greater the older the malady."

Dr. Brown Leynard. "I shall publish shortly my researches on the changes brought about in the power of the medulla, by irritation of the base of the encephalon. At present I will only call your attention to two peculiarities: If the pons varoli or the medulla be galvanized on one side or on both, results directly opposite can be obtained. There may result complete inhibition of the spinal medulla, of the spinal nerves and disappearance of the cerebral faculties, or we may have an exaggerated augmentation of the power of the spinal medulla. I have already seen an analogous phenomenon in two individuals who had suffered almost identical fractures of the vertebral column. The one was feeble, his respiration difficult, the beatings of the heart diminished gradually, the temperature became rapidly lowered; in one word, there was an arrest of the exchanges between the tissues and the blood. The other had an agony horrible to behold; all the muscles were extremely agitated, the temperature ran up rapidly to 111.2 Fah.

"There are about the phenomena so very different, that I have seen results from galvanization of the base of the brain."

M. Galezowski reported numerous cases of cure of paralysis of the oculo-motor nerves, by means of the bromohydrate of pilliterine. These paralyses had resisted all other treatment. They yielded in three or four weeks after the use of the above-named salt. Unfortunately it is a very expensive remedy, costing 18 francs (=$3.60) the gramme (=15½ grains).

M. Franck reported the case of a patient who came to see him one day with all the symptoms of a cardiac affection: oppression, general anxiety, persistent cardiac bruit, resembling the noise made by beating thick cream. Nevertheless, the examination revealed nothing according with the symptoms. M. Franck thought that, the bruit might be extra-cardiac, a bruit of the stomach for example. Desirous of convincing himself, he catheterized the stomach and the bruit disappeared; he filled the stomach with water and it returned. This man had thus a bruit of the stomach, concording absolutely with the beating of the heart. This fact has been already observed, but never in so clear and marked a manner.

A NEW HYPNOTIC.

At the last session of the Academy of Medicine (Paris), Dr. Dugardin Benmety presented in his name and that of Dr. Bardet, an original communication on a new hypnotic *phenyl-methyl acetone* or *acetrophenone*, mixed acetone, which been had already studied from a physiological standpoint by M. Popoff and Neacki, who have demonstrated that this substance is transformed in the organism into benzoic acid and carbonic acid, and that it passes into the urine as a hippurate.

Drs. Dugardin Benmety and Bardet have resumed these experiments, and have found that this product possesses very marked hypnotic properties. It is for this reason that they propose for it the name of *hypnone*, expressing at the same time its chemical, natural and its principal property.

Given to the adult in doses varying between 5 and 15 centigrams, mixed with a little glycerine and put into capsules, the phenyl-methyl-acetones determines a profound sleep, and in alcoholics its hypnotic properties have seemed superior to chloral and paradehyde.

In nine patients, to whom it had been administered for fifteen days, the authors have not been able to discover the effects of intolerance; only the odor of the breath became disagreeable in consequence of the elimination of this acetone by the lungs.

Injected under the skin of a guinea-pig, this phenyl-methyl-acetone, in a pure state, in doses of 0.50 centigrms. to 1 gramme, determined a hypnotic stupor, which gradually transformed itself to a state of coma, in which the animal expired at the end of about six hours.

It would be very interesting to know if the effect called *hypnotic*, or what would be better *somniferous*, of this substance, is not dependent upon the carbonic acid, one of the products of its disorganization according to Drs. Popoff and Neacki. Perhaps it would be well and equally important to study its toxic properties, which are relatively sufficiently active.—(*Tribune Medic.*)

Obstinate Metrorrhagia.

℞.	Ergotine (Bonyeous)	45	grains.
	Pulv. Rue	22	"
	Pulv. Sabinae	22	"
M.	Make thirty pills.		

Dose—Two pills daily, augmented to four if necessary.—(*Berne de Therap. M. Ch.—Union Med. de Canada.*)

POTASSIUM SALICYLATE IN ACUTE RHEUMATISM.—Dr. E. L. Miller, of Eaton, N. Y., recommends the use of the potassium instead of the sodium salt of salicylic acid in acute rheumatism. He claims that the potassium favors the elimination of the worn-out albuminoid products which fall short of being converted into urea in the body; he has used this salt when the stomach refused to tolerate the sodium salt.—*N. O. Med. and Surg. Jour.*

Selections.

The Use and Abuse of Pessaries.

Read before the Atlanta Society of Medicine.

BY VIRGIL O. HARDON, M.D., ATLANTA, GA.

[Taken from the *Atlanta Med. and Surg. Journal*.]

IT is a trite observation that there exists a strong tendency in medical opinion to run to extremes of approval and condemnation of modes of treatment whose value has not been definitely determined. The eagerness with which a new discovery is hailed, and which is based upon the success attained by the originator operating upon selected cases with the skill and experience incident to a thorough study of the subject, in time gives way to an opposition, based upon disappointment and failure in the hands of novices, who apply the newly-discovered method without discrimination or skill. In no department of medicine are these facts more frequently and forcibly exemplified than in that of diseases of women. During the establishment of a scientific system of gynecology within the last half century, nearly all the great operations which mark the rapid strides of that branch of study have run the gauntlet of—first, undue praise; then, adverse criticism; and finally, an intelligent and discriminating adoption.

It is not surprising, therefore, that great diversity of opinion should be found among eminent authorities in regard to the proper application of mechanical treatment for displacement of the uterus, or that, after human ingenuity has been apparently taxed to its utmost limit in devising new pessaries, as diverse in their shapes as in their degrees of usefulness, a tendency should be manifested in modern gynecology to abandon the use of the pessary altogether, or to return to its primitive form, which consists of a medicated tampon of cotton, or some similar soft material. This tendency can be seen running through all the current literature of the subject, although the great leaders in gynecology will be found to occupy the middle ground of conservatism. Thomas, for instance, in speaking of pessaries, says: "Were I asked at the present moment whether I believed that, in the aggregate, they accomplished more good or evil, I should be forced to give a doubtful reply."* Such is the general drift of opinion among authorities whose skill and experience commend their views to the most profound respect. A quarter of a century ago there was no such uncertainty of opinion, and its existence at the present day shows that a reaction has taken place, and a gradual approach to the opposite extreme may naturally be looked for.

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*Diseases of Women. New York, 1880, p. 67.

But, in addition to this natural tendency toward a reaction, there is also another reason for the modification of the former belief in the efficacy of pessaries. With the increase of exactness in the diagnosis of uterine affections, and with the better adaptation of means to the cure of morbid conditions, there has grown up a closer observation of the results of treatment, and hence a disposition to scan more rigidly the efficacy of methods which tradition and custom have rendered sacred. The use of pessaries dates from the days of Hippocrates, and their value has, in former times, been looked upon as established beyond a question. They have been inserted in a perfunctory and routine way wherever there has been found a uterine displacement, and it can readily be conceived that, in unskillful hands, they have accomplished an immense amount of harm, which has never been placed to their credit.

Yet it was not until the inauguration of the improved methods, now employed in the investigation of uterine diseases, that the profession began to realize that they had been playing with a weapon as potent for evil as for good, and that the bad effects of an ill-fitting pessary had been often mistaken for symptoms of the disease under treatment. How many a pelvic cellulitis has been set up, how many an existing inflammation has been fatally aggravated by this means, can never be estimated. But that their name is legion, may be inferred from the fact that such results are not unknown even in the most skillful hands at the present day. Meigs said: "Pessaries are necessary evils,"* and the forty years which have elapsed since he made this statement have only served to confirm its truth. But the evil is not necessarily inherent in the instrument itself, but lies oftenest in its misapplication. Emmet says: "I have never known a practitioner who was able to fit a pessary properly, who was not also fully satisfied with the amount of benefit derived from its use."† This statement expresses only a part of the truth. It may be rendered complete by making the ability to recognize the indications for the use of a pessary an additional requisite to its satisfactory employment. My observation has convinced me that the number of cases in which a pessary is applied unnecessarily, is fully as great as that in which it is applied unskillfully. In either case, the treatment must inevitably result in failure, and the physician condemns the instrument instead of its unwise application. From oft-repeated experiences of this kind, the opinion is gaining ground that the less the profession have to do with pessaries, the better will it be for themselves and for their patients. This opinion is, to a certain extent, a judicious one, for the proper application of a pessary requires an amount of skill and experience which is not possessed by the majority of general practitioners. Hence, the discouragement of their use would doubtless result in actual benefit. But it is manifestly illogical to condemn these instruments on account of their failure to accomplish good results in incompetent hands. Yet it appears that this is usually the chief ground on which their condemnation is based.

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*Females and Their Diseases. Philadelphia, 1848, p. 144.

†Principles and Practice of Gynecology. New York, 1884, p. 302.

In order to apply a pessary properly, and thereby obtain grounds for an intelligent opinion as to its usefulness, certain requisites are indispensable, and their absence is the cause of many of the failures to achieve satisfactory results. They are—

1. A familiarity with the anatomy of the organs of the female pelvis.
2. A certain amount of mechanical skill.
3. A sufficient supply of pessaries from which to select.
4. A precise idea of what is to be accomplished by the pessary selected.

It is only within a few years that the anatomy of the female pelvis has been understood. One who looks in the older works on anatomy, obstetrics or gynecology, at the figures which are designed to represent the normal appearance of the pelvic viscera, and compares them with the most recent authorities on the subject, will be struck by the wide differences which present themselves. In the former, the vagina is represented as a dilated cylinder, with a continuous curve from the vulva to the fundus uteri, with the concavity looking forward. The uterine, cervical and vaginal canals thus form nearly a half circle with no angles. The uterus has apparently no support from the surrounding parts, the perineal body is an extremely insignificant feature, and the vaginal promontory has no existence. On turning to the true anatomy of the pelvis, as demonstrated by recent investigators, there will be found an entirely different aspect of affairs. The utero-vaginal canal is a closed passage, its walls being everywhere in contact. It has two curves, the principal one, from the vulva to the os uteri, with its concavity looking backward, and the other at the cervical junction, forming a sharp angle forward of fully forty-five degrees. The perineal body is a large triangle occupying the greater part of the recto-vaginal space and forming, by its anterior convexity, the vaginal promontory, which plays an important part in the support of the womb. If a comparison be made between these two pictures, the former of which was regarded as correct until a very recent period, can it be wondered at that failure has so often attended the use of an instrument whose success is dependent entirely upon its mechanical adaptation to the vaginal canal? To a similar lack of anatomical knowledge may be attributed a considerable portion of the dissatisfaction attending the use of pessaries at the present day.

Without a certain amount of mechanical skill, it is impossible for any man to succeed in the treatment of uterine displacements by the use of pessaries. The problem presented is wholly a mechanical one, and the ingenuity of the gynecologist finds in this field ample scope for its fullest exercise. The problem of maintaining the position of the uterus by a support which shall take its bearings from the vaginal walls without undue pressure at any point, is by no means a simple one, and it is only by the study of the mechanical conditions of each individual case that its solution can be successfully attempted. Emmet says he never uses two pessaries of exactly the same form and size, because he adapts each instrument to the individual case, as a tailor would a garment. "Fortunately," he adds, "there are many women who are able to tolerate an ill-fitting instrument without receiving injury, but they are not benefited, except it be by sheer good luck."* The fact that the pessary must conform to the vagina, and not the vagina to the pessary, is one which is often overlooked. Yet upon the recognition of this fact hangs success or failure. Hence, the physician must be able to appreciate all the mechanical conditions in the case before him, and to select or shape a pessary which will exactly meet those conditions, if he would obtain good results from its use.

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*Opus cit., p. 303.

The necessity of adapting the pessary to the individual case involves also the necessity of a large supply of pessaries from which to select. No one style of pessary is adapted to all cases of displacement, and the wider the range of the physician's resources in this direction, the more probable will it be that he will select the appropriate instrument for any particular case. He may very properly prefer a certain style of pessary for a certain class of cases. But even then he must adapt it to the individual peculiarities of the case before him, for it will be found that there is as much difference in vaginæ as in noses, in respect to shape and size. I have succeeded in obviating, to a great extent, the difficulty often experienced in obtaining a pessary of the desired shape and size by using Sims' block tin rings, which can be obtained in all sizes, and which can be readily bent to any shape by the fingers, and will retain that shape in the vagina. Thus it is possible to meet all the various shades of difference which may present themselves, and to fit the instrument with an accuracy limited only by the mechanical skill of the operator.

But more important than all else is it that a correct idea should be formed of what is to be accomplished by the use of a pessary. The indications in the treatment of a displacement of a womb are twofold: First, to obviate the evil effects of the displacement; second, to remove its cause. It is a common error to suppose that displacements can be cured by the use of pessaries, and the disappointment arising from this error is no small factor in the production of the prevalent dissatisfaction of their use. A displacement is never a disease *per se*, but is simply one of several symptoms arising from a common cause. This cause varies greatly, and the treatment must of necessity be as various as the cause. It is often easy enough to restore a womb to its place, keep it there by a well-fitted pessary, and then say to the patient, "You are cured." But in that case, only a single symptom has been relieved, while the cause still persists, and as soon as the mechanical support of the womb is removed, it will return to its abnormal position. Hence, it is not for removing the cause that the pessary is indicated. It is in fulfilling the first indication named that its proper province is found, viz., to obviate the evil effects. The injurious results of a displacement are due to—first, traction upon the ligaments;

second, interference with the circulation in the womb; third, pressure or traction upon the bladder. These symptoms are not necessary accompaniments of every displacement. It is no uncommon thing to find an anteflexion, for instance, persisting for a long time without producing either of these results. It is only when the womb, from some other cause, settles down below its normal position in the pelvis that the evil effects appear. Emmet says: "To whatever cause the increase in size and weight of the uterus may be due, the organ will settle into the pelvis just in proportion to the additional burden."* This settling down of the womb in the pelvis usually arises from the same cause that produces the displacement. A lacerated cervix, for instance, will interfere with the involution of the womb after labor, and the organ will remain of greater than normal weight. When the patient gets on her feet, it sinks down in the pelvis because the normal equilibrium between the natural supports and the weight to be supported is destroyed. The pathological condition of subinvolution deprives the uterine tissues of their natural tonicity, and this deprivation, in connection with the increased weight of its body, renders it possible for the fundus to sink backward or forward in the direction of least resistance. There follows as a result, traction upon the broad ligaments, causing inflammation in the cellular tissue, derangement of circulation due to constriction of the blood vessels going to the womb, and vesical irritation from pressure or from traction upon the vesico-vaginal septum, and the neck of the bladder. In such a case, all the symptoms are due to a common cause—laceration of the cervix.

(To be continued.)

M. Pasteur on Hydrophobia.

Professor Pasteur read, on Monday evening, to the Academy of Sciences, a statement, of which the following is the substance:

M. Pasteur, some time ago, succeeded in rendering proof against rabies some sixteen out of every twenty dogs experimented upon; but to ascertain that immunity had really been given, he had to wait four months after the inoculation had taken effect. He, therefore, set himself to obtain virus of different degrees of strength, with the object of obtaining prompter and more certain results. This was effected by the following means:

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*Opus cit., p. 348.

A rabbit was inoculated with a fragment of tissue taken from the spine of a rabid dog. The incubation of the poison occupied fifteen days. As soon as the rabbit was dead, a portion of its spinal marrow was in turn inoculated into a second rabbit, and so on until sixty rabbits had been inoculated. At each successive inoculation, the virus became of increased potency, and the last period was not more than seven days. Having ascertained that exposure to dried air diminishes the virus, and consequently reduces its force, M. Pasteur supplied himself with a series of bottles containing dried air. In these bottles were placed portions of the inoculated spinal marrow of successive dates, the oldest being the least virulent, and the latest the most so. For an operation, M. Pasteur begins by inoculating his subject with the oldest tissue, and finishes by injecting a piece dating from two days only, whose period of incubation would not exceed one week. The subject is then found to be absolutely proof against the disease.

At the beginning of July, a young Alsatian, named Joseph Meister, who had been severely bitten in several places by an undoubtedly rabid dog, presented himself at the laboratory. His case, left to itself, being considered hopeless by M. Pasteur, Professor Vulpian, and other high authorities, the patient was submitted to the same series of inoculations that had been so successful on dogs. As a proof, a series of rabbits were simultaneously subjected to the identical processes. In ten days thirteen inoculations were made with pieces of spinal marrow containing virus of constantly-increasing strength, the last being from the spine of a rabbit which had died only the day before. The youth thus operated upon by the successive administrations of weaker virus was made proof against the virus of the intensest strength. It is now one hundred days since he underwent the last inoculation, and he is in perfect health. Those rabbits, on the contrary, which were at once inoculated with the strong virus, without first being rendered fit to receive it, became affected within the proper incubation period, and died with the usual symptoms. The first inoculation practiced upon Meister was sixty hours after he had been bitten. M. Pasteur has, at the present moment, another human patient under treatment who was bitten a few days ago by a mad dog.

M. Pasteur said it would now be necessary to provide an establishment where rabbits might always be kept inoculated with the disease. In this way there would constantly be a supply of spinal tissues, of both old and recent inoculation, ready for use. Before the sitting was adjourned, M. Pasteur received an enthusiastic ovation from both the Academy and the public present.—*Brit. Med. Jour.*

Veratrum Viride in Puerperal Convulsions.

We have often been surprised at the little acquaintance many practitioners, who are usually well posted as to advances in medicine, show in regard to the use of veratrum viride in puerperal convulsions. Few, if any, of our distinguished Eastern professors or authors of text-books on midwifery give more than a passing mention of the fact that this drug is used by some "country practitioners" for puerperal eclampsia. But the records in favor of its adoption as the principal remedy in this disease are so convincing that we feel we but do a serviceable thing in calling attention to the subject. These favorable reports come mostly from practitioners in the Western States.

Our attention has been specially attracted to this subject at this time by noticing reports of the two cases appended by Dr. F. K. Powell, of Dancyville, Tenn., in the *Transactions of the Medical Society of the State of Tennessee*, for 1885. His first case was the wife of a farmer, and occurred in 1881. She was a primipara, plethoric, having a headache, full, bounding pulse, etc. In a few minutes after his arrival, she had a severe convulsion. She was first freely bled, and then he gave her ten drops of tincture of veratrum viride combined with potassium bromide, and repeated the dose at intervals until her pulse was controlled. She had no convulsions after time had been allowed for the medicine to act. In a short time the os dilated, pains grew stronger and more effectual, and she was delivered of a well-developed boy in a few hours, without any further trouble. Treatment was continued for some time after the child was born.

His next case was a negro woman—a primipara—and had had frequent convulsions for a day before he saw her. She was half unconscious; her pulse was full; pains weak; os dilated and rigid, and the indications portended a tedious and difficult labor—such an one to relieve which many authors would advise turning and delivery. The patient was bled, and ten drops of tincture of veratrum viride were given at short intervals until the pulse was controlled. It acted like a charm. Labor occurred on the next day, without any symptoms of a convulsion.

The doctor adds the advice to use fluid extract of veratrum viride hypodermically when the woman is unconscious. He was led to try the remedy by the great success he had had with it in subduing convulsions in children suffering from malarial fever. These reports are valuable when taken in connection with many cases reported by different physicians during the last few years.—*Virginia Medical Monthly.*

The Treatment of Scarlet Fever.

Dr. Bedford Brown, of Alexandria, at the meeting of the Medical Society of Virginia, said that he had seen malignant cases with cold extremities and tongue, with a body temperature of 107° F. He used

℞.	Acid. salicylat, . . .	ʒij
	Tinct. aconit. radicis, . .	gtt. xij
	Infus digitalis, . . .	℥jss
	Spts. ammon. aromat, . .	ʒiij
	Syr. aurant. cort., . .	℥ss
	Aquæ, ...	℥j

M. Sig.—Teaspoonful for a child five years old every three hours.

This combination reduced fever more decidedly than any other antipyretic he had used; it acted also as a diaphoretic and diuretic. A tepid bath or a wet pack increased its action. Alcoholic stimulants benefited malignant cases, tending to collapse and coma; as also cases, on the other hand, having high fever, rapid pulse, and extreme restlessness. Such agents, also, generally arrested adenitis. In dangerous cases, frequent baths were too exhaustive. When extensive suppuration and pyæmia threatened, tincture of iron, Fowler's solution, and quinia sulphate acted well. To arrest acute nephritis and renal dropsy, he enveloped the body with a flaxseed-meal poultice covered with oil-silk.

When the kidneys were engorged, the urine bloody, with dropsy of the chest and abdomen, a full dose of calomel, followed by compound powder of jalap, would often do good. Such cases bore purgation. But if the renal dropsy was attended with cool skin, great pallor, feeble pulse, and great prostration, then frequent purgation was not well borne. In such cases he used lumbar poultices, digitalis, acetate of potash, with occasional saline cathartics. A morbid element in scarlatina often developed rheumatism; hence, frequent cardiac complications. When these occurred, he resorted to the active agents named in the foregoing prescription. Alkalies and salines should be used in renal complications. He had been disappointed with the diaphoretic action of pilocarpin. Potassium iodide was often useful in nephritic sequelæ of scarlet fever.—*N. Y. Medical Journal.*

Rochester Pathological Society.

REPORTED BY EDWARD ANGELL, M.D.

A MOST instructive paper on epiphyseal fractures was presented by Dr. Richard Moore. Particular attention was called to the necessity, in the case of children, of careful consideration of the possibility of such lesion. Very frequently it has been overlooked, the resulting deformity passed by as a simple sprain or regarded as a luxation of the neighboring joint. Nor must it be forgotten that separation of the epiphysis is possible throughout life in the acromion and coracoid process of the scapula. Indeed, according to Hamilton, fracture of the acromion is always epiphyseal.

In the author's experience, this form of fracture occurs most often in the lower end of the radius, contrary to the statement of Bruns, who gives the first place in frequency to epiphyseal fracture of the lower end of the femur. An explanation of this difference of statement was offered through the probability that lower radial epiphyseal separation was often confounded with Colles' fracture. Union, as a rule, takes place rapidly, if there is true opposition, similar to healing by first intention in the soft tissues. Measurement does not show any shortening as a rule, and, therefore, the union is not of a bony nature. In the author's personal experience, the union is generally cartilaginous, rarely by connective tissue.

The instances of epiphyseal fracture of special interest include those of the acromion, of the upper and lower extremities of the humerus, and of the lower end of the femur. In separation of the acromion, all the treatment required is to keep the patient in bed with the arm at right angles with the body, in order to relax the muscles. Separation of the upper epiphysis of the humerus from the shaft is, again and again, mistaken for luxation, and useless violence resorted to, in order to remedy the obstinate deformity. The diagnosis depends upon the muffled crepitus, but more particularly upon the peculiar resulting deformity which, once seen, can never be forgotten. Robert Smith gives a very lucid and beautiful description of its appearance, but fails utterly to grasp its pathology and treatment. To reduce the fracture, the arm should be carried *forward* and upward to the vertical position. Then, with steady, but gentle, extension, it should be carried to the side and confined with a Swinburne's extension dressing. In epiphyseal fracture at the lower end of the humerus, the crucial test between that and luxation is in the reduction.

In recent cases, after reduction, a quick shove of the elbow backward, when the arm is flexed at a right angle, will reproduce the deformity in fracture. In old cases of luxation, motion beyond right angle flexion is free, while in fracture the same effort in making flexion is required throughout. Treatment consists in fixation at extreme flexion.

In epiphyseal fracture of the lower end of the radius, the distinction between it and Colles' fracture is rather of scientific than practical interest, since a similar plan of treatment obtains in both.

In epiphyseal separation of the lower end of the femur, the diagnosis depends upon displacement of the upper fragment downward and of the condyles upward. Its treatment differs from that of luxation of the neighboring joint, in requiring fixation at extreme rather than moderate flexion. This extreme flexion is in contradistinction to the teaching of some authorities, who advise full extension; a plan of treatment that does not secure most satisfactory results.

The paper was listened to with marked attention, and elicited considerable discussion, to which Dr. E. M. Moore, Sr., contributed richly from his own large experience in this puzzling class of cases.—*Buffalo Med. and Surg. Jour.*

Evolution in Medicine.

The Bowman Lecture on "Ophthalmology and Diseases of the Nervous System" was delivered this year by J. Hughlings Jackson, physician to the London Hospital and to the Hospital for Epilepsy and Paralysis. It is of such a philosophic tendency that the *British Medical Journal* analyzes it in the following words:

"The influence of the theory of evolution—or perhaps it would be more correct to say of the mode of thought which has found expression in that theory—upon scientific progress in this country, has been very remarkable. No department of science, from astronomy to psychology, has escaped its transforming touch; it has proved itself one of those large hypotheses which mark an epoch in the history of science. Medicine, which is rather a complex of sciences than a science, is at length beginning to feel the impetus in various departments; and the Bowman Lecture this year is a striking example of the way in which a keen observer and careful thinker, thoroughly imbued with the evolutionary principle, looks at the facts of a certain department of pathology. The main object of the address was to show forth the necessity for differentiation of work, but differentiation combined with co-operation. In the progress of evolution, said Dr. Hughlings Jackson, four stages or degrees were to be discriminated; and scientific investigation must be governed by this condition, and can, therefore, be regarded as the product of the interaction of four influences. The advance of science depends upon increased differentiation of work and definiteness of observation, combined with increased integration of knowledge and co-operation of workers. Numerous illustrations of the advantages to be obtained from this integration and co-operation were drawn from neuro-pathology; but the greater part of the lecture was devoted to an exposition of the pathology of epilepsy, which was chosen because it presented the greatest complexity of symptoms. For the full comprehension of true epilepsy, the co-operation of the physiologist, the alienist physician, and the ophthalmic surgeon, with the neurologist, was required. 'Epilepsy,' said Dr. Hughlings Jackson, 'is a disease of the organ of mind—that is to say, of the highest and most complex centers;' and the organ of mind, he added, was nothing else than a series of centers representing (or co-ordinating) all parts of the body. He advanced the hypothesis that the whole nervous system was a sensorimotor system, in which all parts of the body were represented at three different levels or stages of evolution, integration, and intercommunication, increasing from the lowest to the highest level; so that, in the highest centers, larger areas of the body were brought into connection with each other, while at the same time function was more differentiated.

"Tabes dorsalis, Graves' disease, and diphtheritic paralysis, were given as good examples of diseases in which the centers at the lowest level of evolution might be affected along their whole extent. In the last-named affection, for instance, every organ, from the ciliary muscle of the eye to the muscles of the feet, including the thoracic, abdominal, and pelvic viscera, may be involved. Epilepsy, being a disease of the organ of mind, is at the opposite pole; and Dr. Jackson set himself to show that that disease presented a universal symptomatology, or, in other words, that every department of the nervous system is involved. In epilepsy, every muscle, and in the 'warnings' of epilepsy, every sensory area, from the nose (first cranial nerve) to the feet, might afford symptoms; and after the fit, there is universal paralysis of both animal and organic parts; and not only mental paralysis (coma, unconsciousness), but paralysis to a slighter degree of the lower centers also.

"Sir William Gull, after the lecture, said that Dr. Hughlings Jackson was the greatest living worker, as he was also the most honest and most disinterested, in the field of neuropathy; certainly, he has given us, in his Bowman lecture, as he never fails to do in all his public utterances, much food for thought, and many suggestions to guide future observation and research. But he is not a prophet who prophesies smooth things; he sees and feels the complexity of the problems which he attacks, and he takes no pains to hide the difficulties which exist, both in the facts themselves and in the hypotheses by which it is attempted to explain them. Sir William Gull also said that Dr. Jackson had made his hearers feel that they had been all unprofitable servants, the field of work glanced over was so large, the workers so many, but the work so unmethodical, desultory and scattered. Every observer may, as Mr. Macnamara well said, make definite accurate observations in his own department, though it was reserved for the few to analyze the observations and combine them as the Bowman lecturer had done this year, stringing them on the serviceable thread of a convenient working hypothesis."—*The Weekly Medical Review.*

Microscopy.

How to Make Photo-Micrographs.—By W. H. Walmsley, Philadelphia.—With whatever form of microscope employed a camera of some description is a necessary adjunct, and there is scarcely any limit to the style or form that *may* be employed; though the desirable ones are few in number. The late Col. Dr. Woodward made use of his dark room as a gigantic camera. The sun's rays without were reflected by an enormous heliostat through suitable condensers into the microscope, and thence to a framework (traveling upon a railway) which carried the focusing screen and sensitized plate; the rest of the room being in total darkness. But such appliances are beyond the reach of most workers, and it is therefore needless for us to consider them further. A modified form of the same apparatus may be employed with lamplight, by using two rooms and carrying the light through an opening in the partition between them; but this involves trouble and expense, which may be saved by employing a camera of suitable form, which is the method most generally in use, and is that recommended by the writer.

My first photo-micrograph was made with a very simple and crude apparatus, but one that proved sufficiently effective to turn my attention earnestly toward the possibilities of this method of recording observations made with the microscope; which instrument had for many years been a source of recreation and study, during my leisure evenings. Many and many a time had I longed to perpetuate some of the wonders and beauties revealed by the magic lens, but want of skill as a draughtsman made caricatures of all my attempts with the pencil. Dr. Woodward's magnificent photographs, and those by several other celebrated workers were familiar to me; exciting my envy and admiration, but the appliances wherewith they were produced were quite beyond my reach, and no literature on the subject that I had ever seen threw any available light upon it.

Like many another, I had dabbled a little in photography, upon the introduction of gelatine dry plates, my outfit consisting of a so-called pocket camera, by Walker, the inventor of the present Eastman film roll holder. The camera was merely a cubical box of about four inches square, and without bellows; the focusing being effected by sliding the tube carrying the lens within an outer one. The size of the sensitive plate was 2¾x3¼ inches, very small, but the lens being adapted to the plate. I had received many pleasant souvenirs of the departed summer's "outing," by its aid; which in the winter's evenings now returned were pleasant to look upon. During one of these evenings whilst working with the microscope, an object of such extreme interest came under observation that an irresistible desire to draw or photograph it seized upon me. The former I could not do acceptably; what about the latter? Could my little box be utilized for the purpose? Would the light of my lamp by sufficient if the camera could be made to answer? Upon carefully examining the later I found that the outer tube in which the one bearing the lens was slid, exactly fitted on the end of the eyepiece of the microscope, when the cap of the latter was removed. The instrument was inclined at an angle of about 45°, just comfortable for convenient use, and the object under observation was brilliantly illuminated by a German student's lamp. Without other change than slipping the cap from off the eyepiece, the camera box (from which the lens and tube had been removed) was made to take its place; and on the ground glass screen a well defined and lighted image of the specimen was seen. A slight alteration of the focus was necessary to secure the crispest definition, but there was no doubt thus far of the success of the experiment. A plate-holder, containing a sensitized plate, was substituted for the ground glass, the light was cut off from the microscope, the dark slide withdrawn from the holder; all was ready for exposure. Then the question arose, what length of time must be given? I was absolutely in the dark as to this most important matter; knew nothing whatever about the relative actinism of sun and lamp light; indeed, was so new to photography that I really *knew* nothing of the subject at all. Manifestly only experiment could determine the proper time. The object was the eyeless flea of the mole; a rather dense mass of brownish yellow chitine, yet transparent withal, and showing the tracheal vessel within quite distinctly. The objective was Beck's 1½ inch of the first-class series, the ocular No. 1 or A, and the light (as previously stated) that of a student's lamp, reflected by the concave mirror. The plate was of Carbuth J. C. B. brand, at that time the quickest of any in the market. *Five* minutes was the length of exposure determined upon and given, and the result (with ferrous oxalate development) was a most excellent negative, which is now lying beside me, and which (en passant) is "*not for sale*," being my first-born. Beside it lies another and far better negative from the same object, made recently with identically the same apparatus and fixtures in *one* and a half minutes; the saving in time being due to the employment of the more sensitive plates now made by the same maker, and alkaline pyro development. Another negative from the same subject also lies beside the others, made in *one* minute with the same lens, and lighting, but employing a camera with a bellows, that permitted the banishment of the eyepiece, and this latter negative is incomparably finer in every particular than either of the others. It will thus be seen that in making my first photo-micrograph an eyepiece *was* employed, although as stated, I never use one now.

Subsequently Dr. F. W. Mercer, of Chicago, without any previous knowledge of my initial attempt, devised a similar form of camera which may be used upon any microscope large enough to carry it, with or without employing the eyepiece, as desired. This camera is now being made by the Scovile Manufacturing Company in their usual masterly workmanship, and is sold at a very moderate price. For quickly producing a faithful and permanent image of an object under examination, without any change being required in the microscope or illumination, it serves a most useful purpose; but its field of usefulness, as well as that of view, being extremely limited, it can only be recommended as an adjunct to a better camera.

More recently Mr. H. F. Atwood, of Rochester, devised an ingenious combination of a microscope and camera, which may be briefly described as follows: A cone-shaped box about thirteen inches in length, carries at the larger end a focusing screen and plate-holder for plates, 3¼x4¼ inches. At the smaller extremity is permanently attached a simple form of microscope stand without eyepiece, and provided with the society or universal screw. The focusing adjustment is worked by a rod passing beneath the box to the rear end, where it is attached to a milled head. In use the instrument is placed horizontally upon a table, with a lamp behind the stage of the microscope, the light being condensed upon the object by means of an ordinary bull's-eye condenser. The arrangement will be made clear by a wood-cut to be given in the next of this series of papers. The merits of this form of apparatus are its simplicity and cheapness; the demerits, great unsteadiness, rendering it useless for high powers, and the inability to vary the amount of magnification without change of objectives; there being no bellows or other arrangement for lengthening or shortening the tube.—*The Microscope.*

From C. H. Stowell's Microscope.

GLEANINGS FROM OUR EXCHANGES.—*The Binocular Microscope.*—W. B. Carpenter says that there is one curious thing about the binocular microscope, it increases very greatly the focal depth. He has tried this under every condition and has always found it to be so. He says this is partly explained by the binocular prism having the aperture of the objective. This does not wholly explain it, however; for he says he asked a friend once to look through the binocular with one eye only, the prism being in its place, and to focus the objective for what he considered to be a medial distance; on then asking him to open the other eye, the difference in the depth of focus was at once observed; it was considered that the increase amounted to at least five times. Prof. Carpenter says he has consulted with some of his friends on this subject, but could never come to any satisfactory conclusion.—*Queckett Club.*

The Microscope in the School-Room.—The writer says that no one, who has not tried it, can form an adequate conception of the mental quickening occasioned by showing a few selected slides to classes in the school-room. Such specimens as the scales on the butterfly's wing, the eye of a common insect, grains of sand, the circulation of the blood, etc. Thus by reaching the mind through the eye, a lasting impression is made; such an impression as books and diagrams could never produce. He further says that there ought to be a microscope, and a good one too, in every school in the land. —*N. Y. Jour. Mic.*

Staining Axis-Cylinders of Medullated Nerve-Fibres—Dr. Kupffer says the axis-cylinder contains the nerve-fibrils floating loose in nerve-serum. A compact axis-cylinder is an artificial production. To demonstrate this he stains the nerve for twenty-four hours in a one-half per cent. solution of osmic acid, and after a thorough washing, stains with a saturated solution of acid fuchsin. A transverse section will show the axis-cylinder fibrils as stained points.

Staining Desmids.—When quite fresh, wash and place in a solution of chromic acid, so weak that it requires three days to decolorize a large desmid. When the color has gone, wash in water and stain with anilin. Fix with tartaric or weak nitric acid; then wash and mount in camphorated or carbolized water. All fresh-water algæ seem to do well treated in this way.—*W. B. Turner.*

Volvox Globator, Keeping Alive and Mounting.—Mount in a mixture of equal bulks of alcohol, water and glycerine. They can be double stained by using a mixture of osmic acid, anilin-green, magenta, and Häntsche's fluid.—*English Mechanic.*

Properties of Malleable Iron.—The strength of a finished piece of iron depends on the sectional area of the mass of iron it contains. From a total sectional area of weld iron the slag conclusions, and in the case of ingot iron the blow-holes, must be deducted. As yet, however, microscopy has not advanced far enough in this field to be of great service.

Color of Birds' Eggs.—Both the ground color and the spots are derived from the blood, and not from special pigment glands. The ground color is caused by a transudation through the uterus, which is richly supplied with blood vessels. The spots are formed by particles of pigment which are found throughout the oviduct, and probably arise in the Graafian follicle; the formation of pigment is no doubt to be referred to a process similar to that which causes the corpus luteum in the ovary of mammals.—*Zoöl. Anzeig.*

Action of Cocaine on Invertebrates.—An injection of hydrochlorate of cocaine stops the heart of a snail in diastole; the animal will recover from a dose of .003 gr. An earthworm soon has the middle part of its body rendered insensible by the injection of a dose of .006 gr., but the two sides retain their power of movement. Daphniæ resist for a long time the action of the drug. Hydræ in 5 c. c. of water to which 1 c. c. of the solution was slowly added, died in an extended state. The author suggests that for these and for Bryozoa this drug be used, as enabling us to preserve these delicate animals in an extended condition.

Curved Bacilli.—Hericourt finds curved bacilli, same form as Koch's cholera bacillus, in all water, no matter what its source. Neutral bouillon and potatoes were sterilized and inoculated with dust from various places, and many curved bacilli developed in all the cultivations. Intestinal dejecta in simple diarrhœa, dysentery, typhoid fever, in all diseases of the lungs, these curved comma-shaped bacilli were present.—*Comptes Rendus.*

Microscopical Characters of Cancer.

THE leading article in the *N. Y. Medical Journal*, Oct. 31, is a contribution to the ætiology of malignant tumors, by Dr. R. J. Hall, read before the New York Surgical Society, October 13, in which the author reviews the "predisposition and inflammation theory" of Virchow, Wagner and Gross; the "dyscrasia theory" of Rokitansky, Paget and Billroth; the "embryonal theory" of Conheim and Thiersch, and the "idiopathic" or "spontaneous" theory of Rindfleisch and Stricker. In lieu of these, Dr. Hall cites twelve cases which, in his judgment, support the hypothesis which he says is "slowly, but surely, working its way into the minds of most thinking pathologists and surgeons." This hypothesis attributes these mysterious neoplasms to a specific virus, "in all probability, a micro-organism." The paper is well written and worth reading. The author believes in general cancerous infection, as of the brain, liver, etc., from colloid carcinomatous ovaries, torn during removal; the "cancer bacilli" in this case, (admitting their existence), were let into the circulation and generally disseminated, a wide-spread carcinoma resulting. This is analogous to the production of general tuberculosis following operation on a local process, and so opening the way for the tubercle bacilli into the general circulation.

Dr. Hall's cases were evidently thoroughly studied under the microscope. "With some hesitation," he states that in a single case of rapid growing, non-nucleated, large-celled sarcoma of the occipital region, he found a single bacillus in each cell. These were larger and proportionately thicker than the tubercle bacilli. They were seen with a Zeiss oil-immersion 1-12, No. 3 eyepiece, and the Abbe condenser.

The bearing of the paper and the discussion of it (by Drs. R. F. Weir, A. C. Post and Sands) on the possible contagion of cancer is marked. These gentlemen seem to think that future inquiries should be along the line of the parasitic nature, and, therefore, the contagiousness of malignant tumor.

If we accept specific poisons as the cause of malignant tumors, cases formerly attributed to heredity must now be attributed to infection, as has practically been done with tubercle. Both congenital tuberculosis and carcinoma are extremely rare.—*Indiana Medical Journal.*

Gleanings.

NEPHROLITHOTOMY.—Nephrolithotomy is still a new operation on its trial, but there can be no question that, if it could be established as a reasonable safe procedure, it would be a very valuable means of treating, and perhaps curing, a small, but important, class of cases. It is, therefore, of interest to record that, on September 16th, Mr. Victor Horsley removed from the kidney of a middle-aged woman, a patient in University College Hospital, a stone weighing two ounces and a quarter. Symptoms of renal calculus had been present for four years. Since the operation the urine, which was before fœtid, has become normal, and the whole of the operation-wound, with the exception of the track of the drainage-tube, healed by first intention within five days. This result is the more gratifying and encouraging, as the stone is, we believe, the largest ever yet removed from the pelvis of the kidney.—*Brit. Med. Jour.*

HUCHARD'S HÆMOSTATIC PILLS.—

℞.	Ergotine . . .	
	Quin. sulph. . .	āā gr. xxx.
	Digitalis pulv. . .	
	Ext. hyoscyami . .	āā gr. iii.
M.	Ft. pil. No. xx.	

Sig.—Five to eight pills daily.—*L' Union Médicale.*

POMADE OF DR. JULIEN'S FOR PRURITUS VULVÆ.—

℞.	Zinci oxidi . . .	25 grammes.
	Acidi salicylici . .	1 gramme.
	Glycerini amyli . .	25 grammes.

Sig.—Apply as needed.—*Phila. Med. Times.*

HOPEINE.—This is said to be an alkaloid obtained from hops, the American hops yielding by far the largest percentage. It is a white powder, crystallizable in needles, of a bitter taste, aromatic odor, and soluble 1 in 100 of water, 50 in 100 of alcohol. In the adult, a dose of 1 to 3 centigrammes produces sleep, lasting from two to six hours, and is not followed by the unpleasant after-effects of morphia. In large doses it causes nausea and vomiting and constipation. The dose varies from one milligramme to four centigrammes, according to age and sex. It causes neither dysuria, cutaneous itching, nor, save constipation, any gastro-intestinal trouble, and is therefore indicated in genito-urinary affections and in irritable stomachs. Further experiments are necessary before assigning to hopeine its proper therapeutical place.—*L' Union Médicale.*

THE COLD DOUCHE IN INSOMNIA.—The following is recommended as a very efficacious means of producing sleep in insomnia associated with eruptive or continued fevers: The patient's shoulders are covered with a cloth and the ears plugged with cotton. Then the head being held face down over the edge of the bed, a fine stream of cold water is dropped upon the neck and occiput. The water should fall from a height of eighteen inches during a period of three or four minutes. The head is then dried, and the patient made comfortable in bed. As a general rule, sleep follows in a very short time.—*Concours Médical.*

A FRUITFUL WOMAN.—In the *Lyon Medical* (Canadian Practitioner), is recorded the case of a woman who had twenty-seven children, twenty-five of whom were living and healthy. In one year this woman had five children; three born January 2d, and two on December 27th. Out of twenty-seven children, six only were girls. The woman was sixty-eight years and the husband sixty-three years old. Three daughters are married and following in the steps of the mother; one aged thirty-four has nine children, another has five, two of them twins.

THE DIAGONAL LINE IN THE DIAGNOSIS OF DISTENTION OF THE GALL-BLADDER.—(John W. Taylor, F. R. S., in *British Medical Journal.*) "An important aid to diagnosis will be found in recognition of the diagonal line in the direction of which the gall-bladder enlarges. This is to be traced from the normal position of the larger end of the gall-bladder (near the tip of the cartilage of the tenth rib on the right side) to the opposite side of the abdomen, crossing the middle line slightly below the umbilicus."

DECIDUAL CAST OF THE UTERUS.—Dr. F. W. Kidd exhibited at the Academy of Medicine in Ireland a very complete decidual cast of the uterus, obtained from a patient whose history did not point to pregnancy as a cause. The size of the cast was scarcely greater than that of a non-gravid uterus, and he was inclined to regard it as an unusually perfect menstrual decidua which had been expelled en masse.

AN EXCELLENT COUNTER-IRRITANT.—Dr. Ellwood, in *New Eng. Med. Monthly:*

The following counter-irritant in certain classes of cases I have found very beneficial: ℞. Olei tiglii, ʒ j; ether sulph. ʒ ij; tr. iodinii, ʒ v. M. S.

This excellent counter-irritant is applicable where it is not necessary to produce too much effect; particularly for children.

IODIZED PHENOL IN DYSENTERY.—Dr. L. Rosenfeld advises enemata three or four times daily of gr. one-half of iodine, gr. 1 carbolic acid, ʒ 1 of glycerine, ℥ 2 of water for adults and ℥ 5 for children.—*London Med. Record.*

Book Notices.

WE have received a number of new publications for notice in the MEDICAL NEWS, but the "*Contents*" occupying considerable space, and circumstances making us late with the present number, we have been compelled to wait with our *Book Notices* until our next issue, which we hope will not be long. We always dislike to defer any matter which should receive attention in a particular number of the journal to a future one; and, in the case of *Book Notices*, we have not done so for quite a number of years. When a new book has been published, or a new edition has been issued, we like to be among the first to inform the profession of the fact. We consider we owe this, both to our subscribers and to the publishers. But, as we have stated, we hope soon to make amends for all delinquencies.

Editorial.

NOTICE TO SUBSCRIBERS.—This number of the MEDICAL NEWS completes its *eighteenth volume* and *eighteenth* year. With the New Year it will enter upon its nineteenth volume.

We regret to say that not a few subscribers have not performed their obligations to us. We have done our best to give them a good medical journal, and, from the complimentary remarks contained in many letters to us from those who have been taking the journal for a long time, we believe we have succeeded, but the parties to whom we allude have not paid us as they should. Our rule requires payment in advance; but, in order to accommodate, we have, in many instances, suspended the rule. Our accommodation, however, very often does not seem to be appreciated, for certain ones permit us to send the journal to them and never say a word further about payment. In fact, we have some in our mind, who never pay any attention any more to urgent demands for a settlement. We do not like to cut any one off from the subscription list, and mark them as delinquents—as such who will not pay for a medical journal after subscribing for it—but we will have to do so with a number if they do not pay us soon. A physician who does not pay for his journal is not fit to practice medicine. He had better be engaged in driving mules to market, and let his M. D. stand for Mule Driver.

GENERAL PRACTITIONERS OF MEDICINE—SPECIALISTS.—The above is the heading of an editorial article which appeared in last month's (November) issue of the MEDICAL NEWS. The editorial was prompted by our receiving from the author a pamphlet made up of a paper read by him before the *Connecticut Medical Society*, and entitled "Surgical Notes from the Case-Book of a General Practitioner." The contents of the Notes so impressed us with what an intelligent general practitioner of medicine, who keeps himself posted, can do, that we felt constrained to notice them considerably at length, especially upon considering the rapid growth of specialism, which sets aside certain diseases, and makes the assumption that none but a specialist can treat them.

We reprint the article, for the reason that there have been so many calls for the number of the journal containing it, that the whole edition has been exhausted, and still the demand remains unsupplied. Although it may be regarded a reprint, yet enough additional matter has been added from the "Notes," as to make it almost a new article—besides being more interesting and instructive.

Twenty-five or thiry years ago, with the exception of a few oculists in some of the large cities, there were in this country no specialists. In fact, at the time mentioned, the profession was not divided, as in England, into physicians and surgeons—a physician considering that it devolved upon him as much to treat a fracture as to prescribe for a case of pneumonia. But how different now when there are specialists for every class of affections. Specialists not only for diseases of the eye and ear, but specialists for diseases of the throat and nasal passages; for the throat and lungs; heart and lungs. As is well known, there are medical men who treat only diseases of the stomach and liver; who give exclusive attention to affections of the kidneys and bladder; to piles and diseases of the rectum, etc. Besides these we have gynecologists, dermatologists, physicians for venereal diseases, and diseases of children, etc. In surgery we have dentists, orthopœdists, and a score of other specialists.

In fact, the outlook appears as though the general practitioner of medicine had become an individual of the past; that there was now no need of him—all of the ten thousand ailments to which the human being is prone having been classified, and a specialist placed in charge of each one. The community, we find, is getting pretty well educated to this state of affairs; for it is quite common to be told nowadays by a party, who used to apply to us for advice with all of his ailments, that he is being treated by Dr. Cordis, an eminent specialist in thoracic diseases, for a heart affection; also that a Dr. Rectum has him in charge for piles; Dr. Jecur is prescribing for him for diseases of the liver; Dr. Ren is dieting him for Bright's disease; and that he is taking phosphorus by the advice of Dr. Cerebrum for a nervous ailment. The chairs in medical colleges have been increased from the old and standard number of seven—anatomy, physiology, chemistry, materia medica and therapeutics, obstetrics, surgery, and principles and practice—to fifteen and twenty. Among them are chairs of ophthalmology, venereal diseases, gynecology, etc. And what is the burthen of the teaching of these special chairs? Do they teach their subjects fully? By no means; for that would be impossible—the specialists having so multiplied the technicalities of their specialists—their distinctions without a difference—that it would require the labor of months to master them in each instance. The burthen of the lectures of the occupant of each special chair is really, under the show of some instruction, to impress upon the minds of students that each one of them should, after he has entered upon practice, send to him, the lecturer, all cases he may meet with that belong to his speciality; for that only a specialist can be competent to treat such diseases.

That specialism has even now been carried to a point that it is time to call a halt, we can demonstrate by a small pamphlet we have received, consisting of a paper recently read before the Connecticut Medical Society by Dr. Wm. C. Wile, one of the editors of the *New England Medical Monthly*, and lately published in that journal. The paper is entitled SURGICAL NOTES FROM THE CASE BOOK OF A GENERAL PRACTITIONER. It informs us what a general practitioner can do, who, educated in the principles of medicine, has been taught anatomy, physiology, chemistry, materia medica and therapeutics, obstetrics, surgery, principles and practice, and has kept himself posted in the progress of his profession as set forth in the medical journals.

The *first case* detailed by Dr. Wile in his paper, is one of traumatic tetanus following upon a wound of the knee directly over the patella. The convulsions were of a very frightful character, exceeding in intensity any of a similar kind he had ever witnessed in an active practice of fifteen years. All cases of tetanus, whatever may be their character, which recover, are of very great interest to the general practitioner, and when they approach in severity the one reported by Dr. Wile, and then get well, the therapeutics of that case are eagerly scanned and stored up for future use. After the Doctor's second visit, it seemed that the patient must certainly die, and that fact alone prompted him to employ the heroic measures which were subsequently adopted.

The patient was a young man, aged twenty-one years, unmarried, American. The Doctor was summoned on the night of February 13th, and was informed that he had "fits," the family suggesting that he had taken an overdose of laudanum. On arriving at the patient's bedside, he found him conscious, but suffering, as he informed Dr. Wile, from "inward chills"—his attendants stating that he had had a number of ill-defined convulsions. On inquiry the Doctor learned that on the week previous he had cut his knee, immediately over the patella, with an axe, that the wound had entirely healed, and that there was no evidence, at this time, of injury except a well-formed cicatrix. For a few days previous to the physician's visit, he had complained of pains, more or less severe, in the limbs and the various muscles of the body, creeping chilly sensations up and down the spine, with quite pronounced chills at night. His head had ached, more or less, and he had suffered from hot flashes alternating with chilly sensations attended with pronounced muscular pains all over the body. His temperature at the time was $101\frac{2}{10}°$, pulse 120, full and bounding.

Of course, the theory of opium poisoning, as had been suggested to Dr. Wile by the family, was discarded, for there were no grounds for it in the symptoms; and also, there being none of the exhaustion manifested which usually follows upon severe convulsions, he was not ready to call the case one of tetanus—especially after having waited a reasonable length of time for the return of the "fits," as described, and none appearing. Under the circumstances, Dr. Wile made a diagnosis of a probable moderate congestive chill—the locality being quite malarious—and made a prescription in accordance with his theory.

Professional engagements prevented Dr. Wile seeing the patient on the following day, the 14th, but on the 15th he met a messenger coming for him in haste, who informed him that he was much worse. On entering the room he found four men trying to hold him in bed. He was passing from one convulsion to another in great rapidity—being of the most frightful character the Doctor had ever witnessed. The opisthotonos was perfect, the weight of the body resting upon the occiput and heels, the contour of the body making a perfect bow. The convulsions followed one another very rapidly, `repeating themselves again and again, until it seemed as though exhausted nature would succumb.

But our space will not permit to give details at length, as they appear in Dr. Wile's paper. A brief summary must suffice for the rest of the history of the case. We will, therefore, state that with periods of improvements, lasting for some time, followed by relapses, the disease continued for seven weeks. At one time, from midnight until six o'clock in the morning, the patient had thirty-one consecutive convulsions. The treatment consisted in the free use of chloroform, and exceedingly large doses of chloral hydrate. Half-grain doses of morphine, administered in the early stage of the disease, had no effect. At this time the patient had in twenty-four hours from 75 to 100 convulsions. His pulse was 144, and temperature 104°. Chloral was given in doses of sixty grains every two, three, or four hours. Besides, when the convulsions would be more than usually difficult to subdue, chloroform would be freely administered. There were occasions when the patient would be free from convulsions only when under the influence of chloroform. The amount of chloral given during the course of the disease was six ounces and a half; of chloroform, two pounds and a half. The patient made a good recovery finally. His nervous system long showed very prominently the terrible ordeal through which it had passed, and for a time exhibited all the evidences of that nervous trouble so rare in the male —hysteria.

The *second case* reported is one of herniotomy upon an old man, aged seventy-nine years. Dr. A. L. Williams, of Brookfield, was first called to the case. Dr. Williams, upon failing to reduce the hernia by taxis, sent for Dr. Wile to assist him, and gave him the following history: Michael M—, aged seventy-nine; had for a number of years been suffering from a large inguinal hernia of the right side. He had worn no truss, had made no special effort to keep it in place, and though several times it had caused him annoyance, and a little sickness at the stomach, due to incipient strangulation, still he had been able to reduce it himself up to this time. Twenty-four hours, however, before Dr. Wile's arrival it became strangulated. Failing to reduce it himself, after a prolonged effort, he sent for Dr. Williams, who from the time of his arrival until Dr. Wile reached the place, made every effort by taxis to reduce the strangulation. Dr. Wile, having anesthetized the patient, made efforts at reduction by taxis, but also failed. The sac, too, it should be mentioned, was aspirated.

Having failed to return the intestine by taxis, it was agreed to make use of herniotomy as a dernier resort, to which the patient and his friends had assented. After administering an anesthetic, Dr. Wile cut down upon the intestine, severing the adhesions, which were strong and abundant, opened the sac and returned it. Patient made a rapid recovery—the after treatment having been entirely conducted by Dr. Williams, whom, Dr. Wile says, deserves great credit for his skill.

The *third case* reported is an account of an amputation near the shoulder-joint for gangrene following erysipelas. In about a week from the beginning of the attack of erysipelas (the patient was a negro and was in charge of another physician until the amputation) abscesses appeared along the inner and outer surfaces of the arm, forearm and hand. This condition went on from bad to worse, till it involved the whole of the cellular tissue of the arm, forearm and hand. Large abscesses formed over the pectoral muscles, until at the time the Doctor saw him, the arm and side presented the most frightful mass of putrid flesh and decomposed tissue that he had ever seen. After anesthetizing the patient, a double flap operation was performed, amputating one and a half inches below the shoulder-joint. It was with difficulty that a sound cutaneous flap was secured, in consequence of the skin having sloughed away. After severing the limb, the wound was cleaned with a strong solution of carbolic acid (1 to 20). A drainage tube was inserted, and flaps drawn together as well as possible. An incision was made through the connective tissue from the axilla down to the ilium, evacuating quantities of pus. The cavities thus opened were thoroughly cleaned out with a strong solution of carbolic acid, and the wound left to heal from the bottom by granulation.

The *fourth case* detailed is a highly interesting one, and is illustrated by a number of very beautiful cuts. It is a report of the exsection of the entire shaft of the tibia for necrosis with reproduction of the bone, followed by recovery.

Dr. Wile was consulted by the parents of a boy, twelve years old, in relation to a running sore on the shin of his left leg. On external examination there were found three openings leading through sinuses, which were found to lead to dead bone. The tibia was much enlarged, and the boy showed a decided limp in his gait. There were decided scrofulous tendencies. It was learned, too, that the boy had fallen, striking his shin violently against the iron rail of a railroad crossing, causing a quite severe contusion, which was followed by considerable inflammation. Soon after the bone commenced to enlarge, and had continued to increase in size up to the date of the first visit. The sinuses had opened about a year before, and continued to discharge ever since. The boy's general health was poor, he giving every evidence of the exhausting character of the discharges, and it was quite evident that the injuries he had received three years previously had lit up an inflammation of the periosteum which had led to grave destruction of bone tissue. It was also quite evident that if the impairment of the general health was allowed to go on, the result could not be other than death, and the struggle, apparently, could not be a long one. He advised operative interference, of exactly what character, however, it would be hard for him to say, until after an exploratory incision had been made. The family consenting, he put the boy upon a month's preparatory treatment, getting the secretions in perfect order, building up the general health with cod liver oil, iron, tonics and liberal diet. On the 11th of May, with the assistance of Dr. J. J. Berry, of South Norwalk, who kindly administered the ether, and Dr. S. T. De La Mater, of Bridgeport, he made an incision along the line of the tibia, down to the bone. Cutting through the diseased periosteum and carefully lifting it away, he found the bone to be badly diseased, so much so, after consultation with the two physicians, it was decided to remove the entire shaft. In its removal he was particularly careful not to injure the periosteum, peeling it up cautiously, and, as nearly as possible, keeping it intact. After removing the shaft, a considerable quantity of diseased bone, at each end, was removed with the gouge. After this was all removed, he packed the cavity with absorbent cotton moistened with a solution of carbolic acid (one to twenty). The boy rallied nicely from the operation, and under the influence of the same treatment that was pursued in the preparation of the case, healthy granulations sprang up and there was soon evidence of the production of new bone. After two months, the new shaft was strong enough to allow the fitting of the shoe, to which were attached braces at the side, with the joints at the ankle, the upper ends of which grasped the limb just below the knee, by a steel-padded band. By this time the external wound had healed, and the boy was put upon crutches. From this time out, the progress was uninterrupted. The tibia is now strong and well formed, and the termination of the case is all that could be desired.

The *sixth case* is a report of a formidable case of injury to the hand. It illustrates several principles in medicine and surgery; one of which is the power of nature to recover from severe injury without much deformity or impairment of the usefulness of the part. Patrick, an Irishman, aged forty-four, while working upon what is called a calendar machine, had his hand drawn between two rolls. These rolls weigh about two tons each, revolving only at a distance of a sixteenth of an inch from each other. The upper roll makes three revolutions to one of the under rolls. While in use, the rolls are filled with steam and heated anywhere from 80° to 200°. At the time of the accident, the subject of it was running this machine for the purpose of spreading rubber over some cotton goods. His hand was carelessly resting on the under roll, when it was suddenly drawn in. The machinery was quickly stopped, but he had to retain his hand where it was, until the immense top roll was raised from its position and his hand pulled out, which occupied some moments. Dr. Wile, on his arrival, found the hand in the following condition, quoting his own words: "The hand had been drawn into the machine in such a manner that the palm was turned upward, and, as a consequence, the dorsal surface was but little injured, owing to the fact that the lower roll was only a little warm at the time of the accident, and was going so slowly, but the palmar surfaces were fearfully lacerated and cooked, so that they were only, with the flesh adherent to them, about an eight of an inch in thickness, the bones being badly crushed. All the ligaments of the palmar surface were in view, and more or less cooked. The thumb was uninjured, except that it was badly burned. To make up for the escape of the thumb, the second finger was terribly lacerated. It was not only badly crushed and cooked, but the end, as far as below the first joint, was literally torn off, hanging by a little strip of integument. I desired to remove this, but the objections raised by the family and the man himself, were so great that I was forced to desist, and put it together as well as I could. After drawing the parts well together, I dressed them with a solution of carbolic acid (one part to forty), directing that it be applied fresh every fifteen minutes. The dressing was subsequently changed for an ointment of carbolic acid, made of twenty parts of cosmoline to one of the acid. In spite of the extent of his injuries, he made a good recovery, having only two stiff fingers (second and third), the other two being almost as good as ever. The bones never recovered from the great flattening to which they had been subjected, and, at this day, after the lapse of three years, are not more than three-sixteenths of an inch in thickness." This case is illustrated by three cuts which add very considerably to its interest.

The *seventh case* detailed is an account of a unique case of congenital double talipes, varo-equinus, of thirty-three years' standing, for which the Doctor operated, and which resulted in a perfect recovery. Want of space will not permit us to give particulars, although the report is highly interesting.

The *eighth case* of the paper is an account of an operation for genu valgum, familiarly known as knock-knee, in the adult, resulting in a cure. The report is beautifully illustrated by a number of cuts. The Doctor claims that while the operation for this deformity, attended with successful results, is not unusual during the earlier periods of life, yet he has failed to find a single case recorded of the operation performed in the United States after the age of fifteen. Nor does he find any record of a case in which the deformity has been removed in America, by the method advocated in his paper.

Dr. Wile reports that a Miss Susie C—, aged thirty-three, American, school-teacher, came to his office in September, 1883. She informed him that when eleven months old she was attacked with diarrhœa, which continued for a year. Before that time she had been very healthy, could talk, and was regarded as a precocious child. She removed with her family from North Carolina to Connecticut when about three years old, and was then not larger than a child of eighteen months old, and did not walk until a year after that. She seemed disinclined to efforts at walking, and was disposed to sit with her left foot under her body. At four years of age, however, she was put upon her feet, and could walk a short distance with the aid of a staff. But we must abbreviate as much as possible, and will state that when nine years old she could walk to school without a cane. At eighteen she could even walk two or three miles with no more trouble from the affected limb than from the unaffected one. From eighteen to thirty she could not walk so far, and began to notice a difference in the ankle at the knee, which was painful at times. When she became thirty, the knee began to give her considerable trouble, and she complained of aching in the hip, accompanied with a "numb, disagreeable feeling in the joint, the spot seeming as if it could be covered with the finger." She had schooled herself to walk slowly and deliberately, so that on first entering Dr. Wile's office, he had not noticed the slightest halt or limp in her gait. Afterward on having her walk for the purpose of observation, there was nothing to be noticed in the act, to indicate any deformity whatever, which, on examination, was found to be very great.

The hip was much elevated, the left knee completely lapped over the right one, and the patella was entirely dislocated and rested over on the external condyle of the femur. (A colored plate, exhibiting the lower two-thirds of the body, shows the deformity when the Doctor first saw the case.)

After the lady had consented to an operation, she was subjected to a preparatory treatment for a couple of weeks. She was at the time thirty-three years old. Having been placed under the influence of ether, Dr. Wile first made an incision one and a half inches long, two and a half inches above the inner condyle of the femur. This incision was carried down to the bone, the length stated being required, because the patient was so fleshy. A Hay's saw was then introduced into the wound and the work of sawing was commenced at the base of the condyle, the blade of the saw being protected by two retractors. After sawing as long as he could get the instrument to work, he took a chisel, and with one or two blows of the mallet severed the condyle from its attachment. He then performed subcutaneous tenotomy of the external hamstring tendons. The constricting bands and contracting ligaments were also severed, and with but little effort the condyle was pushed up by the side of the shaft of the femur, and the limb was brought around to its natural position. The wound was then brought together with interrupted sutures, and dressed with antiseptic carbolized gauze dressing. A woolen stocking was then drawn over all, and a plaster of paris bandage carefully applied and allowed to harden while the limb was held in position. The operation occupied about an hour, and after the dressings were applied, the patient was put to bed and given half a grain of morphine hypodermically. The patient did exceedingly well, not an untoward symptom occurring from the time of the operation to the end of convalescence. A large drainage tube was passed through the angles of the wound, which was then irrigated with a one to forty carbolized solution twice, and sometimes three times a day, till the first plaster bandage was removed. On the removal of the dressing then, the wound was found to have healed throughout its whole extent except where the drainage tube made entrance and exit. On removing the tube, the wound rapidly closed.

The Doctor closes his report of this case with the following remarks: "The ease with which an operation of this kind may be performed, and the chances of recovery which it offers, should render it more popular than it now is. If we may except the secondary changes sometimes following old deformities of this character, the conditions of recovery are equally good, in both early and adult life. Even when such unpleasant features are present, as this case shows, an operation offers a good chance for relief, if not cure. I would say that I believe that this is the first time this operation has been performed upon the adult in this country."

In conclusion we will state that Dr. Wile, in his paper of "Surgical Notes from the Case-Book of a General Practitioner," reports a number of other highly interesting cases, but we must forego detailing them at length. We will only mention the titles of a few of them. One is a report of a "Simple Cyst of the Left Ovary—Weight, Twenty-two Pounds—Operation—Recovery." Another is a report of a "Fibro-Cystic Tumor of the Right Ovary—Operation—Death the Fifth Day." In this case the patient confessed to Dr. Wile before death, that she had been addicted for a long time to the use of opium.

In the last paragraph of his paper, the Doctor states that he has performed nine ovariotomies, six of which were successful.

We have not reviewed the paper of Dr. Wile at so great length for the purpose of glorifying him, for we have never met him, and do not have the pleasure of his acquaintance. Our sole purpose in detailing his cases is to show what a general practitioner of medicine can do if he keeps himself posted in his profession by constant reading of medical books and medical journals—more particularly the latter—and has confidence in himself. To the great shame of many so-called physicians, after having obtained their diplomas they never look into a medical work, and if the best medical journal ever published were sent to them without cost, they would not even remove the wrapper. Examine the libraries of such men twenty years after graduating, and they will be found to contain only the same old text-books they used while students—not a single new work having been added. Such doctors, of course, have need to send their patients to specialists.

There is no greater absurdity than that the various human ailments must be divided into classes, and that there must be a doctor for each class. A physician who thoroughly understands the principles of medicine and can treat a case of pneumonia properly, can treat any disease after studying the peculiarities of the affections of the various organs.

ARE PHYSICIANS AND NOT ATTORNEYS AMENABLE TO THE LAW?—In the November issue of the MEDICAL NEWS there was a somewhat lengthy editorial in which this question was discussed, and some examples cited which tended to prove that while physicians were held to a strict accountability for their professional conduct, not unfrequently being mulcted for large sums of money in the way of damages, contrary to every principle of justice, yet attorneys will go scot free, notwithstanding they may been guilty of the grossest malpractice, and exhibited the greatest ignorance and indifference in managing the business of their clients. We alluded to the suit that was recently brought against Dr. E. Williams and partners, of this city, very eminent ophthalmologists, for malpractice, when all the evidence showed that they had done everything in the case that was proper to be done, and that the boy, on whose behalf the suit was brought, became blind because his ignorant friends refused to carry out their counsel. Even the boy's testimony tended to exculpate them from all blame, in the final result that occurred in the case. Dr. Williams and associates, by this trial, were put to great expense, lost much valuable time, and, although it is probable they did not suffer any loss of reputation, in consequence of their high scientific attainments being too well known to be easily damaged, yet such experiences through which they were compelled to go, do not, by any means, tend to add to one's laurels; yet, with it all, in consequence of the jury's disagreeing, they did not even have the satisfaction of an honorable acquittal.

We related another case in which the attorneys in a case let their client's suit be lost, in consequence of neglecting to see that the papers containing the evidence, the rulings of the Common Pleas Judge, and his charge to the jury, were not signed and certified to by the said Common Pleas Judge, when the opposite party took an appeal to the Supreme Court. The consequence of this neglect was, that when the Supreme Court came to try the case, on opening the papers, and not finding a single one signed and duly certified to, they gave judgment against the party whose attorneys had thus been so grossly negligent, for he was, as it were, before the court without a particle of evidence.

In the *Medical Record*, of December 26, 1885, is reported another case of gross outrage upon a couple of physicians by a *Court of Justice*, which always seem ready to inflict the most miserable injustice upon physicians, but are prompt to protect attorneys from all penalties for gross malpractice and gross wrongs against clients who have intrusted to them the management of their business. We will quote the *Medical Record's* account verbatim:

"Dr. A. E. M. Purdy was to called to see Miss Angelina Brown. On his arrival he diagnosticated smallpox. He saw her later in the day with Dr. A. S. Purdy, who likewise diagnosticated smallpox. Still later he saw her again with Sanitary Inspector Dr. C. E. Lockwood, whom he had notified of the case. Dr. Lockwood's diagnosis was smallpox. The patient went or was sent to the smallpox hospital. On her arrival the house-physician, Dr. Bowen, made a diagnosis of smallpox, and so reported to the Board of Health. He subsequently revised this diagnosis and certified that Miss Brown was only suffering from eczema, and told her that she need not remain in the hospital. She voluntarily remained there, however, for some days.

"After leaving the hospital she brought suit against the Drs. Purdy, claiming damages to the extent of $10,000. She asserted that the diagnosis made by Drs. A. E. M. Purdy, A. S. Purdy, and C. E. Lockwood was incorrect, and that she had been damaged to the above-named amount by being sent to the smallpox hospital, and that she was sent there through the agency of the Drs. Purdy.

"On the trial of the cause in November, 1885, in the Superior Court, before Judge Ingraham, the counsel for the defendants moved to dismiss the complaint, on the ground that the defendants had not sent the plaintiff to the smallpox hospital, but that the sending of Miss Brown to the hospital was the act of the Board of Health, for which the defendants were not responsible.

"His Honor denied the motion, and ordered that the trial proceed before the jury.

"The plaintiff on the stand gave a lengthy history of her experiences, and declared that she was not suffering from the smallpox, but from the effects of a local irritant that she had applied to the skin.

"The defendants testified minutely as to the symptoms and eruptive appearances presented at the time of their examination, and declared that they were unmistakably indicative of smallpox.

"Dr. Lockwood testified to the same effect, and that his opinion was formed independently of the Drs. Purdy, and *that Miss Brown was sent to the hospital in conformity with the* *rules and regulations of the Board of Health.* Drs. Austin Flint, E. L. Keyes, and Geo. H. Fox testified that, from the recital of symptoms and character of the eruption as detailed by witnesses, Miss Brown was undoubtedly suffering from smallpox at the time referred to. Other physicians were in court prepared to testify to the same effect. At the close of the testimony the counsel for the defense again moved that the case be dismissed, on substantially the same grounds as before, to-wit: that it was the Board of Health and not the Drs. Purdy that caused the transfer of the plaintiff to the hospital. His Honor again denied the motion, and in his charge to the jury said in effect, that *the defendants had set in motion the machinery* that led to the plaintiff being sent to the hospital. The jury brought in a verdict of $500 against the defendants. The features of the case that are important to the medical profession of this State do not hinge on the correctness or otherwise of the diagnosis. The essential point is whether a physician who complies with the law requiring him to report cases of suspected smallpox, thereby becomes liable for any damage arising or claimed to have arisen through the subsequent acts of the Board of Health. The decision of Judge Ingraham in sending the case to the jury would imply that the physician may thus become liable. This decision, in accordance with judicial custom, will be considered law until reversed by the higher court."

This case having been brought to the attention of the New York County Medical Society, they have appointed a committee to raise money to carry the case to the higher courts for a reversal of the decision, but it will be found the lawyers will gobble up the money and the decision will stand. Could anything be more absurd than it? Dr. A. E. M. Purdy has subscribed $1,000; Dr. C. R. Agnew, $500; while others have subscribed from $100 and under.

PASTEUR'S PROCESS OF INOCULATION TO PREVENT RABIES.—Every person in this country, whether belonging to the profession of medicine or not, has heard of the four Newark (N. J.) children who were sent across the ocean to be treated by M. Pasteur to prevent in them the development of rabies or hydrophobia—all four having been bitten by a rabid dog. We had intended in this issue of the MEDICAL NEWS to have given a full description of Pasteur's laboratory, his method of obtaining pure and virulent virus, how it was diluted so as to obtain different degrees of strength of the poison—making use of rabbits for the purpose—but as a number of articles of considerable length have been given space in the present number of the journal, we have been under the necessity of deferring the subject until another time. The subject will *keep* undoubtedly and will be just as interesting in a few weeks from the present.

The Newark children are now on their way home, guaranteed, no doubt, of being free from all danger of taking hydrophobia in consequence of the biting by the mad dog for which Pasteur treated them. We understand, however, that it is declared by some that the dog which bit the children was not rabid.

Since the Newark children have started for home, a man from America, by the name of Kaufman, has reached Paris to be also treated by M. Pasteur—having been bitten by a rabid animal.

BACTERIA AND INFECTIOUS DISEASES.—Prof. Whittaker, of the Medical College of Ohio, favors the subscribers of the MEDICAL NEWS this month with quite a lengthy article, but, nevertheless, a very interesting one, upon "*Infection, Bacteria and Infectious Diseases.*" We had designed to have prepared a brief review of it, but we have not been able to do so in consequence of having had our time too much occupied in getting ready the "Contents" of the present volume, now ended. But we hope all will read it and give it due reflection. The article contains much valuable information upon a subject that is, at the present time, attracting the attention of nearly every person—the attention not of medical men only, but of intelligent persons who are not physicians.

A TEST is suggested by Dr. Dulles, in the *Polyclinic*, for determining the character of the fluid discharged from a suspected salivary fistula. It consists in bringing a drop of the discharge into contact with a drop of the tincture of chloride of iron on a white surface—a piece of white paper will do—when, if the discharge contains saliva, it will give a pink color, which indicates the presence of the sulphocyanide of potassium, a normal ingredient of saliva.

To the Manchester (England) Medical Society Dr. Hodgkinson exhibited three cases of sporadic cretinism, showing marked arrest of mental and physical development, together with, in two of the cases, immense goitres. There were no circumstances in the family history or general surroundings to account for the condition of the individuals, except that their mother had a slight fullness of the throat over the position of the thyroid gland.

VIBURNUM AND HYDRASTIS IN DYSMENORRHŒA. — Dr. Huchard, of Paris, uses a combination of the fluid extracts of viburnum prunifolium (which owes its activity to valerianic acid, a bitter principle, and tannic acid), and hydrastis Canadensis (whose alkaloids, hydrastine and berberine, are, according to Rostock and Schatz, both anti-spasmodic and anti-catarrhal), in doses of gtt. ten to every two hours in dysmenorrhœa and menorrhagia.—*Jour. de Med.*

CARL H. VON KLEIN states that in forty-eight hours he saw nine children who were affected with leucorrhœa which, in his opinion, was caused by roller-skating exercise. He regards the exercise as injurious to young girls and young women, by reason of the excessive movements of the lower extremities, the pelvic organs, and the walls of the vagina.—*Boston Med. and Surg. Journal*, April 2, 1885.

A PUBLIC meeting was held not long ago in Leicester, England, to protest against the compulsory vaccination law. Several thousand people marched in procession and assembled in the public square to listen to speeches from opponents of the measure. A picture of Jenner was burned, and also a printed copy of the objectionable vaccination law.

Two fatal cases of chickenpox, one reported by Dr. G. W. Rachel, in the *Archives of Pediatrics* for April, 1884, the second by Dr. J. V. Wichmann, of Copenhagen, in the *Nordiskt. Med. Arkiv.*, xvi., No. 20, show that varicella is not always the mild disease which is its general characteristic.

A SERIOUS epidemic of whooping-cough has run through the islands of the Fiji group. The malady has carried off all the very young native children, and left a decrease in the population of 3,000. A few years ago 30,000 persons in Fiji died from an epidemic of measles.